



## Dental Legislation in California.

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Dental legislation was only a promise of the California State Dental Association until 1885. More than ten years prior to this the first effort was made and the necessity for dental legislation recognized in the incorporation of a legislative Committee among the standing committees of the State Dental Association, reports from which were a small and infrequent part of the annual work of that society. The expressed opinion of a prominent and frequent member of these committees was that he believed in a "fair field and a free fight," which condition dominated the profession during this entire period.

### Origin of First Dental Law.

After the organization of the College of Dentistry of the University of California and its adoption of a full nine months' course and a three-year attendance requirement, or its equivalent of one year's office tuition and two College years, it became apparent that the school would find it difficult to establish and maintain such a standard unless a barrier was erected against irregular methods of entering the profession. Failing to obtain the desired assistance from the State Association at two of its sessions through unfortunate personal differences, in December, 1884, there was organized the California State Odontological Society in order to secure associational effort in the accomplishment of the desired legislation. In less than eighty-five days the present law passed both legislative houses, secured executive approval and went into effect. Although the first draft of the bill presented divided the recommending power equally between the California State Odontological Society and the State Dental Association, with one appointment at large for a board of seven, the sponsors of the bill were obliged to fight a strong

and influential lobby from the State Dental Association, the outgrowth of which was the creation of a sentiment among legislators that the entire board should be appointed by the Executive from the dentists of the state without reference to associational affiliations.

The bill was otherwise mutilated with the evident hope of defeating it entirely, and all opposition came from men who for associational and professional reasons should have been its staunch supporters.

Once the law was adopted, there was an immediate need of work in securing appointees to the board who were in sympathy with the spirit of the act; as upon these would devolve the creation of its policy. This was fairly accomplished and its machinery put in motion. I have no doubt that in its earlier years every endeavor was made to secure the most beneficent result to the public and profession alike. Good men from the southern section of the state were appointed in due course in addition to those from the vicinity of San Francisco, but all appointments of men with associational support were made only after the most strenuous effort. The appointments were considered a part of the Governor's patronage, and as such were jealously guarded by one Executive at least to whom the appointment of a dish washer in a state institution had a political insignificance. California has had a series of governors whose every executive act considered first a political possibility.

One member of the board held his office through changing administrations from 1885 until his resignation a few months ago. Whether this was accomplished through associational support or by personal effort has not been disclosed.

The California State Board of Dental Examiners  
**Resignation from** early connected themselves with the National Association of Dental Examiners, its then Secretary being honored by election to the post of Secretary of the National organization.  
**National**  
**Examiners Association.**

Their later withdrawal from the National body has been unjustly criticised in the East, but an investigation of the facts will furnish sufficient justification for so radical a step, which grew out of the prosecution of one Van Vleck in Los Angeles County for illegal practice. Van Vleck was the holder of a diploma from the American College of Dental Surgery, about which questions of doubt were raised involving moral and professional turpitude on the part of both Van Vleck and the authorities of the American College of Dental Surgery. These acts were duly reported to the National body (I believe the correctness of the board's position has since been affirmed by Dr. Theo. Mengies), but, finding no support in what they deemed to be a justifiable action, they withdrew from the Association and have not since been represented.

The rulings of National representatives through Committees *ad interim* are often unfair and their mistakes are seldom rectified. So much for the attitude of the National Examiners Association toward the California board.

**Recent Charges  
Against  
the Board.**

Recently, however, there have been published charges of such a serious nature as to threaten the very existence of our Board of Examiners, to-wit: the sale of the board's favors for pay. Ever since the Supreme Court of California, on appeal of the Van Vleck case, declared "the powers of a board of dental examiners to be judicial in character and its acts mandatory," succeeding boards of examiners have assumed to be above and beyond the wishes of the better element of the profession as represented in associational effort. Every plan to secure a better law has been balked by a majority of those constituting the board, and only because the amendments proposed put the selection of the board into the hands of the State Dental Association, to whom its recommended appointees would be responsible for official acts. This clash and developments since demonstrate the need of associational supervision, and only in this way will the most beneficent results be obtained.

The charges in brief are that a member of the Board of Examiners has offered to guarantee a successful passing of the board's examination for stated sums of money ranging in amount from \$300 to \$1,000. Various individuals in published interviews have made these charges specifically, and it has been stated that the member in question has taken several *students* into his office in preparation for the annual examinations of the board to be thus entered into *reputable* practice. Was ever the purposes of a dental law so set at naught?

To render this more easy of accomplishment, as an act of *courtesy* and *good faith*, examination papers were exchanged between the several examiners *prior* to the examination. With what implicit trust and confidence the bars were taken down! The above charges were investigated by the board at a stated meeting called for this purpose at the suggestion of the Executive, who had declared that he had no power to act in the matter. This action of the board sent those who had made the statements upon which the charges were based to seek legal advice as to the power of the board to compel attendance as witnesses, the result being that but one appeared by affidavit making definite charges as above; and one in person whose testimony could not be allowed as being only hearsay; although corroborating the affiant witness as to the time and place and his presence in the city at the examination mentioned.

The board, through its President, therefore reported to the Governor

that the charges were not sustained, but immediately all sent in their resignations excepting the accused and his accuser and one other who has not been prominently acting with the board owing to absence from the State. The present condition is that four have resigned and no reappointments have been made.

The ultimate result will probably be an amended law presented at the next Legislature backed by the full moral force of the dental societies that will make any future Board of Dental Examiners amenable to the State Dental Association for its official acts.

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### **Charges Against the California State Board of Dental Examiners.**

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For several months we have had knowledge of the fact that serious charges had been brought against a member of the Board of Dental Examiners of the State of California, and we have devoted considerable time to an investigation of the facts. In consequence of the deep interest at present felt in dental education, and because of the important bearing that the conduct of Examining Boards must have upon this important problem, it seems necessary that the whole profession should know the story of the California Board matter, unsavory though it be. The story can best be recounted by republishing extracts from the local newspapers. On September 23, 1899, the *San Francisco Call* published a lengthy article from which the following is clipped:

"SACRAMENTO, Sept. 22.—A scandal of general State interest is brewing in the State Board of Dental Examiners. Dr. F. F. Tebbets of this city, who is one of the members of the board, has been accused by one of his associates of the grossest misconduct, and after every effort has been made to suppress the charges and prevent publicity an investigation has been ordered. Dr. Tebbets has been charged by his associate, Dr. Louis T. Cranz, with having juggled with the important matter of issuing diplomas. This serious accusation has hung over Dr. Tebbets's head for weeks, but his friends have induced the Governor to prevent an investigation until now. The complacency of the chief executive in the affair has naturally excited a great deal of adverse comment.

"In an interview tonight Dr. Tebbets insists that the whole affair grew out of a personal quarrel. This, however, is not the case. Until recently the two dentists were friends. Then Dr. Cranz made his accusations, which were based upon an interview and a discussion which Dr. Tebbets had sought. After the charges had been made the clash between Dr. Tebbets and Dr. Cranz came, the former threatening to kill his accusers. Serious trouble between the two men was averted only by the timely interference of friends of both.

"Dr. Cranz made his charges to the Governor and demanded that an

immediate investigation be held and that Dr. Tebbets be forced to resign. The Governor promised that he would accede to the request. He honored his promise in his customary way by doing nothing. A State officer had been accused of a serious offence. An inquiry had been demanded, but the Governor, pledged by his oath of office to secure an honest administration of State departments, not only refused to make an investigation but sought in every way to prevent one.

"But Dr. Cranz was persistent. He persevered in his appeals to the Governor and finally secured from him another promise that Dr. Tebbets would be forced to resign or would be removed. Again nothing was done by the Governor. The friends of Dr. Tebbets meanwhile were busy. They were importuning the men who surround the Governor to save the accused man from exposure. Letters were sent by Chief of Police Dwyer and others of this city to members of the Republican State Central Committee.

"All of this had the desired effect, but now it is understood that Dr. Cranz intends to force the retirement of Dr. Tebbets, even at the expense of exposing the scandal and resigning himself from the board. Dr. F. H. Metcalf, who resides in Sacramento and is also a member of the State Board of Dental Examiners, received a telegram from Dr. Cranz yesterday. In this telegram Dr. Cranz again demands an investigation of the Governor's refusal to act."

The newspaper published another lengthy article under glaring headlines on the day following, and two columns more on September 25, the following paragraphs being the most important:

"Dr. Cranz declares that he has ample and convincing proof of the guilt of Governor Budd's appointee. He is prepared to go on the stand and swear that Tebbets approached him on a proposition to share a bribe of \$1,000, which was to be paid by a Chinese, and he has other witnesses who will testify to further facts in support of his charges—facts that he avers will leave no room to doubt the guilt of the accused. What is more important, more convincing than any verbal evidence, Dr. Cranz has at his command letters written by parties who are among those alleged to have paid money to Tebbets, through Dr. J. S. Knowlton of the College of Physicians and Surgeons, for a set of questions that were to form the test of the qualifications of applicants for dental diplomas at the recent examination held in this city. Two of the letters are here reproduced. The first is from W. T. Covington of Los Angeles to George Harris, a dental operator, with offices in the Phelan Building. The other is the answer, written by Harris. They are as follows:

LOS ANGELES, Aug. 8.

Dear Friend George: I arrived here O. K. and found work stacked up as I expected. Say, George, get those papers by all means, if you can. The general is at Catalina Island this week and I can't see him until he gets back, so don't know anything new. Write and let me know every-

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thing. Excuse such a short letter, but have got to get some work out tonight, so good-bye. Your friend,

W. T. COVINGTON,  
239½ Spring Street.

P. S.—Say, George, say hello to Wolf, but don't let him see this letter, as we don't want to get at outs with him. Will close.

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SAN FRANCISCO, Aug. 21.

Friend Covington: Just received your letter. After you left I stayed in town a few days and then went to Ukiah, just returning.

I sent for Wolf, but he says he knows nothing. It's ten to one we will get the worst of it. He must know something because he dropped it so quick. I met Tebbets, and he said to keep still. It is common talk that the Chinaman paid \$1,000 and then got left; the Armenian \$200. He is said to have confessed, and they are going to throw Tebbets off.

Business since I returned is good, and I hope it is with you. Write me and tell me what you know. Yours,

GEORGE HARRIS.

"George R. Harris, Frederic O. Wolf and Nicholas Connor, dentists practicing in this city without license or authority from the State, were anxious to secure diplomas from the State Board of Dental Examiners, and Harris was delegated to prepare the way. Harris, it is alleged, made a dicker with Tebbets, by which he was to be furnished with the examination questions, the consideration being \$40. Harris pawned his diamond ring for that amount with a Grant avenue pawnbroker. Tebbets, it is charged, learning that Harris intended to share his good fortune with others, made a demand for more money, and then Harris called upon Wolf for \$25. Connor is also said to have paid over \$20, all of which was turned over to Dr. Knowlton, to be paid by him to Tebbets.

"Harris, it is charged, received the list of questions according to the bargain and took them to his office, where the three studied them and prepared their answers. By some slip they had not been provided with the questions in anatomy and, although they stood high in every other branch, they were refused their certificates. When they were informed of their failure Harris sent a peremptory demand for Dr. Knowlton to come to his office at once. Knowlton came and brought with him the money he had received for Tebbets, which he handed over without question. Harris's first move was to take his ring out of pawn, after which he returned the money advanced by Wolf. Wolf, however, retained possession of the list of questions, and it was due to the desire of Covington to get these valuable aids to the study of dentistry that led to the exchange of letters between him and Harris.

"Harris denies that he ever had any transactions with Dr. Knowlton or Dr. Tebbets, but Knowlton has incautiously admitted his part of the transaction, although protesting that he had no idea for what the money was intended."

On September 26 the *Call* gave nearly three columns to the article from which the following paragraphs are taken:

"The scandal in the State Board of Dental Examiners, in which Dr. F. F. Tebbets is the central, unenviable figure, has assumed wide proportions. Another dentist has come forward to join Dr. Louis T. Cranz in charging Dr. Tebbets with attempted bribery. This new accuser is Dr. G. H. Gazarian of Fresno, who declares that Dr. Tebbets demanded of him \$300 as the price of a diploma from the State Board. Dr. Gazarian says that Tebbets told him that there were four members of the board who had to be paid. Gazarian refused to give the money and failed in securing a certificate.

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One of the most remarkable features of the entire affair is the attitude assumed by Dr. G. S. Bachman, the president of the State Board of Dental Examiners. As president of the board, Dr. Bachman not only refuses to call a meeting to discuss and investigate the charges, but he has countermanded an order which he made for a session. The president makes the startling announcement that he postponed the meeting which he had already called simply because the charges against Dr. Tebbets had become public property.

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There is an abundance of testimony to prove the charges against Tebbets.

"Dr. W. Z. King of this city will testify that Tebbets admitted to him that he had been doing crooked work as a member of the State Board for four or five years, and that his illicit traffic had yielded on an average of \$500 a year.

"Dr. Metcalf of Sacramento and Dr. King will be relied upon to prove that Tebbets demanded pay for a dental certificate from Dr. G. H. Gazarian of Fresno, and the latter corroborates their statement.

"Dr. J. L. Asay of the faculty of the College of Physicians and Surgeons will swear that he had to pay Tebbets for securing a certificate for a young lady student.

"Dr. L. M. Finnigan of San Jose will give evidence against the accused to the effect that Tebbets demanded and was paid \$50 for securing a certificate for Dr. Finnigan's stepson.

"This is briefly what will be set forth in the formal charges which are being prepared for Dr. Cranz by Attorney Thomas D. Riordan, and which will be forwarded to the Governor today. No later than yesterday Dr. Cranz received reassurances from Dr. Asay and Dr. Metcalf that they would be ready to tell all they knew when called upon to testify.

"The Finnigan case is one in which Tebbets displayed unusual boldness. Finnigan's stepson was in the midst of the examinations when Tebbets approached Finnigan with the statement that the stepson was a little deficient in some branches; that a certain member of the board objected to giving him a certificate, but that for \$50 he could 'fix' the objecting member. Finnigan paid \$25 on account, and in due course of time the step-

son received his credentials. A short time afterward Tebbets sent a letter to Finnigan requesting him to pay up the balance due.

"A somewhat similar case is that of Dr. Asay. A young lady dental student who studied under him went before the State Board for a certificate. She was unusually bright and passed a most creditable examination. No one thought that there would be any question of her passing, and Dr. Asay was astounded when Tebbets called upon him and imparted the information that several members of the board were opposed to granting certificates to women. Tebbets feigned sorrow for the young lady's plight and out of the goodness of his heart suggested that he might be able to 'fix' the matter for a certain sum. The money was paid and the certificate was issued."

On the same day the *Call* published the full story of the Fresno dentist's case, which article was subsequently made a part of an affidavit which was presented at an investigation (?) which was finally held. The following is a copy of the affidavit and article:

State of California,

ss.

County of Fresno.

H. Gazarian, being duly sworn upon oath, says that he read an article in the San Francisco *Call* of Tuesday, September 26, 1899, headed:

#### EVIDENCE ACCUMULATES.

##### TEBBETS WANTS A POOR ARMENIAN TO BRIBE HIM.

That affiant is the same Dr. G. H. Gazarian who is mentioned in said article and that he has read said article and knows the contents thereof, and that the statements therein purporting to be made by me are true and correct, with the exception as to the place where Dr. Tebbets spoke to me. The article states that he, Dr. Tebbets, was in his office at the time he called to me; this is an error; at the time Dr. Tebbets called to me: "Hello, Gazarian," and said "I am glad to see you, and hope you will pass this time," he was not in his office, but he was at the Dental Practice Parlors of the College.\*

That affiant hereto attaches said article and makes it a part of his affidavit and alleges that the same is substantially true and correct.

[Signed.]

H. GAZARIAN.

Subscribed and sworn to before me this 27th day of October, 1899.

[Signed.]

EDGAR S. VAN METER,

Notary Public in and for the County of Fresno, State of California.

[Seal.]

#### EVIDENCE ACCUMULATES.

##### TEBBETS WANTED A POOR ARMENIAN TO BORROW MONEY TO BRIBE HIM.

"FRESNO, Sept. 25.—Dr. G. H. Gazarian of the firm of Cook & Gazarian, dentists of this city, claims that he is one of the victims of

\*Probably meaning the Infirmary of Dental Department of College of P. & S.



the wholesale bribery practice charged against Dr. F. F. Tebbets of the State Board of Dental Examiners. According to Gazarian's story, he is a victim, not because he was fleeced out of \$300, but because the board refused to issue him a diploma after he had passed the examination but had refused to pungle.

"Gazarian is an Armenian and speaks English with difficulty, but he is reputed to be one of the best practicing dentists in Fresno, notwithstanding he has never been granted a diploma. He has appeared before the State Board of Dental Examiners three times and has taken the examinations twice, the last time in August of this year, when, according to his story, Dr. F. F. Tebbets made overtures to him.

"In August, 1898, Gazarian decided to take the examinations and went before the State Board, but failed on account of his inability to speak fluently the English language.

"I was about to leave San Francisco in disgust," said the doctor to a correspondent of the *Call* tonight, "but met a young friend at the depot who told me not to be discouraged; that he was sure if I came next year he could arrange it so that I would pass. I thanked him and told him that I would. Before I left he said I had gone at the thing in the wrong way; that what I needed was not to study English and dentistry but to get an influential friend on the Board of Examiners. I told him I didn't know any of the members and was a stranger in San Francisco. He said: 'Oh, that doesn't matter; go to a member of the board and pay him something and it will be all right.'

"I thought the matter over and went back to San Francisco last August to try the examinations again. I didn't like the money suggestion and did nothing toward getting an influential friend on the board. My young friend had promised to do that and I trusted that he would help me if he could.

"On the second day of the examinations I was leaving the room in which the questions are submitted to the applicants and happened to pass the door of Dr. Tebbets's office. The door was open and the doctor was sitting in a chair. He hailed me, saying: 'Hello, Gazarian; I am glad to see you and I hope you will pass this time. Come in; I want to tell you something.'

"I went into the office and he asked me how many times I had tried the examinations. I told him I had been before the board three times, counting that one. He asked me if I had seen a certain young man at the depot as I was about to leave San Francisco the year before. I told him that I had and that I had seen the young man since I got back to San Francisco that time. He asked me what the young man had told me. I explained that he had advised me to get an influential friend on the board.

"Well, did you get the influential friend?" he asked.

"I told him that I did not; that everybody was a stranger to me. 'Would you like to pass this time?' he asked. I told him I would, and he said, 'Well, I am your friend; I'll help you.'

"I did not see him again until the next day. It was the day the soldiers came in and he was on his way down to the ferry depot accompanied by his secretary. I met him and he said: 'Come, doctor; let us go

see the soldiers.' I walked down the street with him and pretty soon the secretary left us.

"At Market and Fourth streets Tebbets invited me into a neighboring saloon to have a drink. I drank soda and he took whiskey. He mentioned the conversation had with me the day before and asked me what I thought of it. I told him I thought he was my friend. He asked me how much I thought he ought to get. I told him I had no money and could not afford to pay much. He suggested that a diploma ought to be worth \$300 to me. I refused to pay it, saying I didn't have the money. He said he would be easier on me but that there were four members of the board and that when the \$300 was divided up it would leave them only \$75 each.

"I still persisted that I was not able to pay the money. Then he wanted \$20, but I told him I did not have even that. He wanted to know if I couldn't get some friends to go security for me and finally asked me to mortgage my Fresno ranch, but I refused.

"Next day we went back to the examination room and the secretary read aloud the names of those who had passed the written examination. My name was on the list of the successful ones. We still had to take the practical examination.

"On the day following I again met Tebbets and he asked me what I was going to do. I told him I had no money. He repeated that I might give him security for the amount, but I refused.

"'Well, you'll never pass,' said he, and that was the last I saw of him. When the list of successful candidates in the practical examination was read my name was not among them. I thought of going to Sacramento to lay the matter before the authorities, but finally gave it up in disgust and came home. I will cease practicing before I take another examination."

On September 29 the *Call* announced the resignations of four members of the Board, viz.: Dr. Metcalf, of Sacramento; Dr. Bliss, of Santa Cruz; Dr. S. S. Bachman, the president, and Dr. Moore, the secretary, adding, however, the following significant words:

"The resignations of Dr. Bliss, Dr. Bachman and Dr. Moore have been surrounded by a great deal of mystery which reputable dentists are at a loss to understand. There is no record of the resignations in the office of Governor Gage and some of those who are 'wise' to the methods of the Governor are suspicious. They are afraid that the resignations may be lost and that his Excellency, who sees in them a repudiation of his peculiar policy, may refuse to accept them.

"The cautious ones are waiting therefore to see an acceptance of the resignations. Dr. Cranz is consequently waiting for developments before he hands in his resignation."

On November 21 the *Call* reviewed the case, the following bringing the story up to that date:

"The scandal in which Dr. F. F. Tebbets was the central unenviable figure is still fresh in the public mind. Dr. Tebbets was charged with bribery and other serious offenses. Formal accusations against him were prepared by Dr. Cranz and presented to the Governor for investigation.

Gage, with that contempt which marks his official actions, did nothing. He finally announced that he could do nothing, and, without offering a suggestion or a recommendation, allowed the affair to drift as it pleased.

Meanwhile the State Board of Dental Examiners was languishing. Its opinions counted for nothing, as one of its members stood seriously accused and unvindicated. Something had to be done, and several members of the board, who felt the sting of accusation, tried to do it. They realized fully that they could not act with authority. Under the law they have no power to force witnesses to appear before them, and they cannot expel one of their own members and deprive him of his State commission. Under these conditions the inquiry promised to be most unsatisfactory, but the honest members of the board determined to make it and clear themselves from the shadow into which Tebbets had been cast.

Four witnesses were summoned to a meeting which was held two weeks ago last Saturday. As expected, none of them appeared, not being compelled to do so under the law. One of them even left the city in order to be beyond reach. The only testimony that could be obtained was that of the Armenian practitioner of Fresno, who submitted an affidavit swearing that Tebbets had offered him a certificate for money. It is claimed that nothing could be done at that meeting. The honest members of the board saw that they were powerless even to save themselves from the stick with which Tebbets had been tarred, and an adjournment was taken until last Saturday.

The Armenian's affidavit was then read, but no other testimony was offered, for the reasons given. Then some one moved that the charges be dismissed and Tebbets be exonerated. This was asking too much and while the president, Dr. G. S. Bachman, showed no disposition to press the investigation, he voted with his associates against the motion. The honest members of the board were practically where they were before, and in disgust they voted to leave the entire matter where the Governor desired it should be without determination and with the charges of dishonesty still hanging over the head of Dr. Tebbets."

The following appeared in the *Bulletin* of November 27:

"SACRAMENTO, Nov. 27.—Ever since the inception of the sensational charges made against Dr. Tebbets of the State Dental Board it has been inferred in more than one instance that Governor Gage has attempted in a measure to shield his appointees or that he has not taken that active stand in arriving at the truth of the matter that he should have done. How groundless these charges are may be realized by the text of the following letter that he forwarded to the president and secretary of the board on October 6, 1899, and which has never before been accorded publication:

"SACRAMENTO, Oct. 6, 1899.—Dr. G. S. Bachman, President, and Dr. W. A. Moore, Secretary State Board of Dental Examiners—Gentlemen: I have received a copy of a resolution dated Benicia, September 28, 1899, said to have been unanimously adopted by the State Board of Dental Examiners in special session, which is as follows:

"Resolved, that each member of the Board of Dental Examiners transmit all the evidence in his possession regarding the charges made against Dr. F. F. Tebbets by Dr. L. T. Cranz to the Governor, together with

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the names and addresses of any and all persons that may know anything regarding said charges.

"I also received through Mr. Thomas Riordan, attorney for Dr. L. T. Cranz, certain written charges signed by Dr. L. T. Cranz, dated September 27, 1899, accusing Dr. F. F. Tebbets of grave crimes as a member of your board.

"Entertaining a doubt as to my powers and duties in the matter of an investigation, I submitted all the papers to the Hon. Tiley L. Ford, the Attorney-General, requesting an early opinion as to my power to afford a remedy in case the charges should be found true.

"I inclose a copy of my letter and a copy of the opinion rendered by the Attorney-General in response thereto, from which it will be seen that I cannot give relief in this matter and that all action must be instituted by the members of your board.

"It is lamentable, as appears by the opinion of the Attorney-General, that the law should render me powerless to give redress in the event of the serious charges being sustained. This defect in the law would appear from the accompanying opinion of the Attorney-General to be curable only by future legislation, and it is my firm purpose to call the attention of the next Legislature to this very grave state of affairs.

"In view of the law, I therefore request your board to take such proceedings in the matter of these charges as is indicated in the opinion of the Attorney-General, and in accordance with such further views as you may obtain from him. If the accused be guilty, your duty demands that you take every step provided by law for the exposure of the crime and the punishment of the guilty party.

"Regretting that I am deprived of the power to afford redress in a matter of such moment to the people of the State, I am very respectfully  
yours,

HENRY T. GAGE,

Governor of the State of California."

SAN FRANCISCO, Cal., Nov. 22, 1899.—To His Excellency Henry T. Gage, Governor of California—Sir: The charges presented by Dr. Cranz to the board relative to Dr. F. F. Tebbets were taken up and the following resolution was passed:

"Resolved, That in the matter of the investigation of the charges against Dr. F. F. Tebbets, there not being evidence sufficient to corroborate said charges, they be dismissed."

Dr. Cranz made a statement that "so far as he was concerned the case against Dr. F. F. Tebbets was closed."

A motion being made and seconded was unanimously carried as above stated. Very respectfully,

G. S. BACHMAN, President.

W. A. MOORE, Secretary.

The *Examiner* of December 4 relates that the resignations of Drs. Metcalf, Bachman, Moore and Bliss were still in the hands of the Governor; that Dr. Cranz had said he would not resign until the Governor should accept the resignations already in his hands; that Dr. Tebbets declared he would never leave the board until Dr. Cranz had done so, and that the Governor had said:

"You can quote me as saying that I will never accept the resignations of those four doctors until Dr. Cranz files his written resignation."

All of which appears to form a nice little muddle.

As soon as we first learned of these charges a communication of inquiry was sent to Dr. Tebbets, and we herewith publish his reply without editing it and without comment beyond the statement that the original is an autograph letter throughout, so that what errors there are cannot be chargeable to the long-suffering typewriter girl:

Sacramento Oct 10

R. Ottolengui

Dear Sir, your of 3rd inst received and Contents noted. the article produced in the S. F. Call is false which will be proven at the investigation which is to take place soon. as to that man pratisng without license why their is one hundred & fifty like him that we are unable to get evidence enough to Convict. as they demand a Jury Trial, and you know the result Generally. Respectfully

D. F. F. TEBBETS...

P S this the result of defeated Canidates at our Examinations

### **Oxyphosphate Fillings Not Injurious.\***

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By Prof. G. S. JUNKERMAN, Cincinnati College of Dental Surgery.

That pulps die under oxyphosphate cannot be denied. That some have died under oxyphosphate that would have survived some other kind of filling material is also not debatable; but I do not believe that in a perfectly typical case of a thin perfect stratum of dentine being covered with a perfectly mixed cement, death of the pulp will occur.

There are many circumstances that alter the effect of cement used in deep-seated caries. Many times from imperfect diagnosis, due either to the carelessness of the operator, or often to our inability to determine whether there is or is not an actual exposure of the pulp, the results will prove unsatisfactory. If an imperceptible exposure exists, oxyphosphate will accomplish destruction of the pulp as readily as any other material placed upon it. Thus I do not believe that any pulp that is actually exposed can be preserved alive for any length of time under any kind of filling material.

I do not believe, however, that oxyphosphate should receive the censure that such results receive, where deep-seated caries has advanced to an actual exposure of the pulp, whether that exposure be perceptible or not. Many practitioners jump at conclusions exactly in cases of such a nature. If a perfect stratum of dentine exists between the pulp and all probability of actual exposure is removed, and if the cement is properly

\*Continued from page 7.

mixed, I do not believe that such a pulp will be injured. Take three typical cases in which a perfect stratum of dentine exists. Introduce in the first case the cement properly mixed, free from all superfluous acid. In the second case varnish with shellac the intervening stratum, as a precautionary measure, and introduce perfectly mixed cement. In the third case introduce cement that is not properly mixed, upon either a varnished or unvarnished surface, there being a surplus of acid present; the first two cases will be successful, the last will prove fatal as to the vitality of the pulp.

**Preparation  
of Cement  
Important.**

It is a surprising fact how few practitioners mix cement properly. Many pulps are destroyed by the use of this filling material when its use should have preserved them. I could give a whole hour's discourse on the subject of mixing cement. All cements have their peculiarities, and before any one of them is used, a perfect comprehension should be had of all its peculiarities. I have no doubt but that we would receive less criticism in the use of cement in the deep-seated cases of caries, if every operator had a full knowledge of how to use cement and how to mix it. If we cannot use cement in deep-seated caries, then its chief function is gone as a non-irritant, non-conducting filling material. We must relegate it then strictly to the use of setting crowns and bridge work. But even in cases of this kind, its usefulness would be limited, because we would not feel justified in using it in many cases where crowns and bridges are set upon vital teeth. Cement does not fulfil all requirements, but we must believe that the percentage of complaints could be much reduced if it were properly used.

**Action of  
Phosphoric Acid.**

The question is asked, how do cement fillings destroy pulps? I would answer this question by stating that, in my judgment, pulps are destroyed by the acid from the cement acting as an irritant to the pulp. We have no doubt established the fact that fluids permeate the dental tubuli, and that when there is a change in the chemical reaction there also occurs an osmosis outward or inward. The natural condition of the pulp is to be of an alkaline reaction. When you place fluid on the other side of the dental tubuli you produce an inward osmosis, and I feel thoroughly convinced that should the conditions of the pulp chamber be examined in a case where there has been a surplus of acid placed over the pulp, we would find phosphoric acid within the pulp chamber. The death of the pulp is accomplished no doubt from the effects of the phosphoric acid as an irritant, and the endeavors and struggles of the pulp to throw off this irritant, as would occur in any other part of the human body where an irritant were present.

## **Oxyphosphate a Menace to the Pulp.**

By Prof. L. G. NOEL, University of Tennessee.

I certainly do believe that an oxyphosphate filling in a deep cavity carries danger to the pulp, unless that organ is protected from its irritating qualities by a coating of varnish applied to the surface of the cavity before introducing the cement.

As to the nature of the irritation, etc., that the fluid of oxyphosphate cement possesses irritating qualities no dentist will deny who has tried the experiment of placing some of it into a freshly excavated living tooth in his own mouth. The pain will usually be in proportion to the quantity of fluid in the mix, but in some of the quick setting kinds is increased by the heat generated in chemical union. Whether this irritation is due to a chemical change in the organic contents of the dentinal tubuli I am not prepared to say, but such irritation must be due to a tissue change of a more or less destructive nature. It has been asserted on very good chemical authority that arsenic is present (a trace) in the powder of almost all of the cements on the market, and that this fact accounts for the reduction of the sensitiveness in cavities that have been filled a short time with this material. Admitting the frequent presence of arsenic in these cements, need we look further for causes of devitalization?

I must say that dentists very often fail to make out a clear diagnosis of the condition of the pulps of teeth before filling them, and hence often make the mistake of hurrying a cement filling into a deep and sensitive cavity when the pulp is in a state of hyperæmia, if not of inflammation, and that without varnishing the cavity, or making any effort to protect the pulp from irritation. It has been proved that oxyphosphate cement is to a limited extent a conductor of heat and electricity, therefore, the dentist who will take the risk of filling the cavities without first coating the surface of the dentine with a varnish, is reckless in the extreme, and this remark applies with especial force to the teeth of young patients where the pulps are large and the dentine but partially calcified.

Yes, I think dentists very often lose pulps under cement that would die under any sort of filling.

### **Opinion of Prof. C. E. Hungerford, Kansas City Dental College.**

I do not believe oxyphosphate fillings dangerous to pulp vitality. The mass is chemically inert to tooth structure. Deep seated caries is always a menace to the vitality of the pulp, even though the hole were filled with the "Balm of Gilead."

**Opinion of Prof. C. N. Peirce, Pennsylvania College of Dental Surgery.**

Oxyphosphate is somewhat of an escharotic. When placed in a deep cavity it sometimes induces irritation of the pulp from its near contact. In consequence of this, the pulp may calcify (secondary dentine), or it may die. If the cavity does not approach the pulp, but the dentine is very sensitive, the action of this cement will invariably remove the sensibility so that a subsequent operation in the near future could be performed without pain.

I do not believe the zinc oxide, one of the ingredients of the oxyphosphate filling, carries any arsenic from the zinc metal. Pulp dies under gold fillings; also under amalgam when in near relation, but this is usually from thermal changes. I have not found more than three or four dead or dying pulps under phosphate fillings; certainly a much less number than under gold or amalgam. Hence, you see, my conclusion is that, under similar circumstances, the phosphate of zinc filling is not more dangerous to living pulps than fillings of other materials.

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**Opinion of Prof. H. H. Fuller, Missouri Dental College.**

I believe an oxyphosphate filling in a deep cavity carries less danger to the pulp than most other fillings would under like condition.

I attribute the death of the pulps under oxyphosphate fillings to the condition of the pulps when the teeth were filled, they being either diseased at the time, or so nearly exposed as to be affected by anything in the shape of a filling.

I do not believe the cement affects the teeth injuriously, nor do I believe the better cements contain arsenic, arsenious acid or anything deleterious to the tooth or tooth pulp. I would add this, however, while not covered by the question asked, that I almost invariably use a varnish of some kind before introducing the cement; copal, ether, Wessell's cavity lining or something of that nature. The cement is more readily introduced, and the conductivity of the filling lessened.

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**Opinion of Prof. Otto Arnold, Dental Dept., Ohio Medical University.**

Assuming that the dental pulp is neither exposed nor infected, I believe its vitality may be endangered by the direct application of oxyphosphate in deep cavities from the following causes, viz., chemical action while in the plastic state; heat generated during crystallization; thermal conductivity. Any of these may prove sufficiently irritating to disturb its normal functions and ultimately cause its death.



**Opinion of Prof. Henry W. Morgan, Vanderbilt University.**

I have often met with cases of facial neuralgia and abscesses upon the roots of teeth that had oxyphosphate fillings in them, and because I have had no other reasons to assign the conditions to, I have attributed the death of the pulp to the presence of a large mass of oxyphosphate zinc. I have believed it to be due to the presence of phosphoric acid.

The mixture of oxyphosphate is a chemical process that is not well understood, and in the hands of most men very carelessly handled. In many attempts to fill teeth with it there is an excess of phosphoric acid, which, I think, explains the devitalized condition of the pulp.

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**Opinion of Prof. L. E. Dunbar, University of California.**

I believe any filling material in a deep cavity carries danger to the pulp in proportion to the conductivity of the material; this is so easily obviated, however, that the use of oxyphosphate need not be interdicted in such situations.

I am of the opinion that death of the pulp is to be accounted for by the careless use of large masses of oxyphosphate in cavities where some adverse impression has already been received by the pulp.

There is also a disposition upon the part of most practitioners to take for granted the statements of manufacturers in respect to the "non-irritating and non-conducting" qualities claimed for oxyphosphate, and to use them without due precaution particularly in pulp conservative efforts.

I do not believe in the persistent action of oxyphosphate upon the organic elements of a tooth, but think that the deleterious effect is one that would occur under any filling material used in the same way, the trouble being that we expect too much from oxyphosphate.

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**Oxyphosphate Fillings Sometimes Dangerous.**

Dr. E. W. WEDELSTAEDT.

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I am glad you have asked these questions. It gives me pleasure to answer them. It is time for us to have definite knowledge. Long past time, in fact, when myths should be placed on the top shelf and out of reach and facts should take their place. Theories are all right, provided they have any foundation to rest upon, but when they are mere allegations that cannot be substantiated, then they should not have a place in

our text books. I desire to express sincerest thanks to you for opening this crusade. It should have been inaugurated many years ago, and should be kept up continuously. If we can do this, and if you will do it, it will not take many years to raise the standard of dentistry much higher than it is at the present time. The answer to these questions is liable to stir up a hornet's nest, for, with the limited knowledge which we at present possess in regard to this subject, it is only possible to state what one believes. I am perfectly willing to place to one side any of the ideas or theories I entertain at the present time, regarding this or any other subject, and will accept in their stead new and better ones that are reasonable propositions, and that have some scientific basis. Until that time I will hold fast to that which I consider good.

**Danger  
of Filling Over  
Infected Dentine.**

I believe an oxyphosphate filling in a deep cavity does very often carry danger to the pulp. Why? For the simple reason that in a great majority of cases, the filling is placed on a whole mass of decalcified dentine. Just so long as our text books do not condemn the leaving of soft decay in cavities, and just so long as some teachers will teach doctrines of this kind, just so long will any filling placed on this mass be the means of ultimately destroying the pulp (provided the patient does not die or have the tooth extracted). Now let us look this matter right in the face. In almost every section of this country I have heard men say, "You place cement on a mass of decay in a cavity and you destroy all the micro-organisms that are in that decay." That is just where the trouble is, the destruction of the micro-organisms. We know positively that micro-organisms are little cells of albumen, and that they have the reaction of albumen when chemically tested. They have been analyzed, and this is a fact. If we accept this teaching, then it is necessary for us to go a step farther. When cement or any filling is placed on a mass of decay in a cavity, the micro-organisms are shut off from the air and their entire environment changed. They get old, die and their solubility readily takes place. After resolution, the cell contents is simply a toxine and is called toxalbumen. This is the same as any other toxine—capable of destroying life. Now, therefore, when a filling is placed over a whole mass of decay, as has been stated, there is danger of poisoning the pulp from the poison that is liberated by the micro-organisms. But how? may be asked. The micro-organisms have penetrated just about so far into the tooth. When the toxalbumen is liberated the fibrils, which are in the immediate vicinity, are first affected by this poison. They absorb it and carry it on to the main body of the pulp, which in turn is poisoned the same as were the fibrils. Whether or not

this is the exact process I cannot state. A number of years ago Dr. Black called my attention to this matter, and from that time to the present day I have carefully studied this subject of filling over decay, and I have some definite idea of what the results are, for I have seen them many times. I do not believe that the cement, in some cases, has any more to do with the destruction of the pulp than has any other filling material that might be placed in that cavity, unless there were free phosphoric acid in the cement, in which case it might possibly destroy the micro-organisms in the immediate vicinity more quickly than if a metal filling had been used.

Let us assume that the conditions are different; that all the decay possible were removed from a large disto-occlusal cavity in a lower molar. (I am thinking of a case that took place in my practice some three years ago.) The pulp was not exposed, but it was "very close," as the saying is, so cement was placed in that cavity. A well-known oxyphosphate was used, and the patient sent away to await developments. At the end of two years the patient returned and said, "That tooth is much higher than any of the rest of the teeth in my mouth. It is very sore." A rubber dam was adjusted, and the filling removed. It did not take very long to ascertain that the entire pulp cavity was one mass of secondary dentine. Why did this pulp die? I believe the vitality of the fibrils was not great enough to overcome the caustic action of the phosphoric acid. Another solution is this. The decay had extended much farther into the tooth than was supposed. The pulp was not exposed, but its vitality was so greatly impaired that it could not recover. It was so weak from the repeated hyperaemias that death was the only alternative. Whether a cement or metal filling had been placed in this cavity would have made little difference; the pulp would have died just the same. It might be said, "If you had placed gutta percha, chloro percha or some intermediate layer between the cement and the fibrils, and had then placed the cement on this, there would have been a chance to preserve the vitality of that pulp." It has been tried time and again, and the pulps have died just the same. The pulpo-axial wall is always protected from the action of the cement by giving it a coat of varnish. I do not think this thin coating of varnish offers a very great resistance to the caustic action of the phosphoric acid.

**Persistency of  
Phosphoric Acid.**

Phosphoric acid is a caustic, and when it is mixed with the oxide of zinc, it still retains a portion of its causticity. I did not believe that until a minute ago. I picked up a residue cement filling that I had mixed about two months ago, cracked it in the dynamometer and broke the pieces between my teeth. I have those pieces in my mouth while I am dictating, and

each time I break a piece there is a fresh taste of the acid. If I can notice this taste of the acid with such distinctness, certainly the delicate fibrils in a tooth must be affected by it.

There is still another phase to be taken into consideration. To what extent are pulps strangulated by the reparative forces? I refer to secondary dentine. Every once in a while I remove a filling and find a pulp chamber and part of the canal filled with it. Sometimes one of the canals in a molar is almost completely filled with secondary dentine and the pulp in that root dead, while in the other root there is some life in the remnant of pulp that remains. I believe, where these conditions are found, that the cement has acted as an irritant to the fibrils and pulp. The reparative forces have made an effort to protect the pulp from this irritation. They commenced their work with so much energy that when it came time for them to stop, they could not on account of the pace they were traveling. They kept on working until the pulp was strangled. I have observed quite a number of these cases, not alone where cement had been used as a filling material, but where metal also had been used. I call attention to this with the hope that others will send in reports in regard to this subject. Whether or not it is anything new I do not know. I feel, however, in discussing this question that this particular phase of it should not be left out. I therefore ask to what extent are pulps destroyed—strangulated, as it were—by encroachment of secondary dentine? How many others have observed this same state of affairs?

I cannot wholly accept the theory, "that the pulp prior to the filling was either so diseased or so closely approached that it would have died under any sort of filling." That may be true in many cases, but why do pulps die under gold crowns when, in a great many cases, the tooth does not show any signs of decay? The pulp in such cases is not closely approached. I believe it is largely due to the caustic action of the phosphoric acid, which destroys the fibrils and the pulp.

While at Niagara Falls last August, I was talking with a man with a national reputation, who is as honest as it is possible for a man to be. After reading my essay, he took me to one side and related a number of cases that he had had where there was a recurrence of decay in cavities that had been filled with cement. He stated that this was wholly due to the porosity of the cement. Now I question this. It may be true in a measure, but I think the principal trouble was not the porosity but the shrinking of the cement. It shrunk so far away from the margins that it allowed the free ingress of micro-organisms, with the inevitable result of recurrence of decay.

Sufficient has been written in regard to the porosity of oxyphosphates, without arguing in regard to their density. There are very few on the market at the present time from which fillings can be made that will be so dense that moisture will not penetrate them from circumference to center within seventy-two hours. Dr. Williams, in a recent number of *The Dentist*, has an editorial in regard to some of my investigations. The results he obtained were somewhat different from those which I obtained. The sample fillings exhibited at Niagara Falls were not made of the same cement that he used in his experiments. The cement fillings that I made were placed in a bottle of sandarac varnish and allowed to remain there for a few moments before they were placed in the aniline bath. Others were rolled in a bath of hot paraffine. According to Dr. Johnson's examination, the fillings that had been treated in this way showed as much penetration by the aniline as did those that were not so treated. There are cements that it is unnecessary to cover with varnish or any preparation to prevent the ingress of moisture, but the great majority that are on the market at the present time are wholly unfit for the purposes for which they are intended.

The question can well be asked, "If you consider phosphoric acid such a powerful caustic, and it has the power of destroying the life of the pulp, how then can micro-organisms live in it?" I have carefully considered this question, for I did not wish what I had to say to appear inconsistent. My position is simply this: I hold that cements should not be mixed so that there will be free phosphoric acid when the cement has set. There should be just enough powder mixed with the fluid to form a homogeneous mass. When cements are improperly mixed, and there is too much free acid, this acts as a caustic and destroys the pulp. The moisture begins to penetrate the cement soon after the filling is made. The intensity of the acid is slowly decreased until it is so weak as not to be a menace to the micro-organisms. When this condition is reached the micro-organisms enter the cement. It may possibly be that they have previously entered and been destroyed, and that toxalbumen can be found in the cement filling. The bacteriologists must investigate this so that we may have definite information.

## **Arsenic in Oxyphosphates Not Injurious.**

By DR. W. V. B. AMES, Chicago, Ill.

In view of the extent of the agitation of the question of the trace of arsenic often contained in cement powder, being a potent factor in the occasional unexplained death of a tooth pulp, I consider it advisable to endeavor to sift that matter down in replying to the questions propounded.

I do not think that it will be amiss to venture what may be information to some, that this trace of arsenic, in whatever form it may be, is derived from the original zinc ore, which almost invariably has an arsenical contamination. In the distillation of an arsenical zinc ore, the arsenic will be the first component to pass over into the condensing chambers, and if a manufacturer of dental cement happens to get his zinc or oxide from the early portions of a run, then his finished product will almost necessarily have a trace of some compound of arsenic, but if he happens to secure a quantity from the proper stage in the run, he has—generally unknown to himself—a product free from arsenic. In the results of the various series of tests of cement powders for arsenic, I am satisfied that it was a “fluke” in most cases in which a powder has been found to be arsenic free. In tests of powder of my manufacture, some specimens have been found arsenic free and some found to contain a trace, without any more care having been expended in the preparation in one case than the other. In the report recently published by Dr. J. E. Hinkins of tests of powders of different makes, one color of “Lynton” was found free of arsenic, while another contained a trace. I am in position to be pretty sure that this difference did not come from the pigmenting process.

The obtaining of arsenic free raw material is a discouraging undertaking, and if the usual process of producing chemically pure zinc oxide be adopted, the trace of alkaline precipitant which is so persistently present will be more objectionable than is the trace of the arsenic compound.

In a paper read before the National Dental Association August, 1899, I gave in detail experiments which proved conclusively to my mind that the arsenic present in cement powder is present as arsenite of zinc, and other experiments, which proved still more conclusively that arsenite of zinc, *per se*, cannot bring about the death of a tooth pulp. In the paper

referred to I did not deny the possibility of arsenous oxide being developed under some unpardonable conditions. Some recent opinions, from recognized authorities, lead me to believe that I was too conservative in that paper, and that neither the type of phosphoric acid forming the active ingredient of cement liquid nor any putrefactive or fermentative change of organic tissue can develop a potent arsenic compound from arsenite of zinc.

It seems unfortunate that this question should have been brought out in such a way as to constitute a "scare-crow" to young practitioners who have not had sufficient experience to enable them to arrive at an opinion of their own as to its importance. Since it must have come up sooner or later, if it can be thoroughly and effectually sifted at this time, all will be well, and some credit redound to some of those instrumental in setting up the "scare-crow."

A paper was read by Dr. A. B. Howatt of Chicago, whose attention had been called to the evidence of arsenical contamination, but who had not had the experience to enable him to present the matter properly from a clinical standpoint. Then, in about the same way it was presented by Dr. J. E. Hinkins, also of Chicago, who simply gave the results of some application of the Marsh test, without giving the results of his clinical experience, which should have led him readily to the conclusion that the arsenic must be present in a compound wholly incapable of bringing about the death of a tooth pulp. Extra prominence has been given to the "scare-crow" by the manufacturer of a cement which happened to be one of those found by Dr. Hinkins to give no arsenic reaction, in an advertisement which reads: "Most cements on the market contain arsenic. 'Lithos' does not."

Dr. J. N. Crouse, the manufacturer, or, at least, the proprietor of Lithos, is qualified to estimate clinically, to a nicety, the potency of this arsenic compound. Now if Dr. Crouse has knowledge of some deleterious effect possible from the presence of an infinitesimal trace of arsenic as it exists, he owes to the world the enlightenment which would come from making public this knowledge. I will watch with interest the issues of the *Digest*. If he has no such knowledge, is such advertising for the good of all to whom it is addressed?

I believe, however, that this question must of necessity gravitate to logical conclusions as a result of its treatment by unprejudiced writers of large clinical experience, which ought to settle it for all time.

After what I have offered, it is almost needless for me to say that I do not believe that the statement of Vernon J. Hall in "Chemistry and Metallurgy Applied to Dentistry" in regard to cement powders containing *arsenious oxide*, can be substantiated.

But pulps do often die in a mysterious manner, it is said, under oxy-phosphate. If it were from arsenic present in some form in the oxyphosphate, depth of cavity would make little difference, as all know who have made even moderate use of arsenious acid for devitalizing purposes.

If the arsenic feature be eliminated there are left, as I view it, two possible factors, shock and irritation produced by the phosphoric acid.

When a tooth with a vital pulp has been denuded of its enamel, and a portion of its dentine has been cut away in preparing it for a cap crown, and pulp inflammation more or less acute ensues, the symptoms are not those of arsenical irritation, which will hurriedly cut off the circulation of blood within the pulp, but are akin to those symptoms caused at all times by shock of thermal changes, which, if sufficiently severe, will start pulp calcification, that very prevalent source of neuralgias. The death of the pulp of a tooth which has been denuded of its enamel can be accounted for without considering the possible effect which might be exerted by the phosphoric acid under some conditions.

**Action of  
Phosphoric Acid.**

To get down to the question of whether the phosphoric acid may or may not act as a sufficient irritant to cause the death of a tooth pulp we must look into the chemistry of this acid. Theoretically and commercially it is supposed to exist in three forms, meta, pyro and ortho-phosphoric, which may be best regarded as consisting of phosphoric anhydride with one, two and three molecules of water respectively. Meta-phosphoric acid is capable of coagulating gelatin and egg albumen. The pyro and ortho-phosphoric are not coagulants of these materials. A sample of acid may really be a combination of meta and pyro-phosphoric or pyro and ortho-phosphoric depending on the temperature to which the material has been subjected. Glacial phosphoric acid of commerce is meta-phosphoric acid in combination with meta-phosphate of sodium, added for its glacial consistency. A solution of this material in water subjected to moderate heat for a considerable time will give ortho-phosphoric acid and ortho-phosphate of sodium. A very large proportion of cement used is made up with a solution of this kind, and it is not reasonable to suppose that such a combination can be especially irritant if possessed of reasonable setting qualities. I can only see that there might possibly be danger of irritation from some very slow setting cement if placed quite near to a tooth pulp, for instance, much less than a millimeter removed. Some of the heavy liquids which give very slow setting probably border on being of the pyro-phosphoric type. One cement, the "Harvard," is labeled "Pyro-Meta-Phosphatische," etc. I feel called on to say simply that the nearer this liquid comes to being what its label implies the worse it is for the tooth pulp with which it is brought in close proximity. A pyro-phosphate so-



lution would be a heavy liquid, giving slow setting and free acid decidedly in evidence. A pyro-meta-phosphate solution would have the same qualities in a more marked degree, and in addition would be a coagulant of albumen. I do not believe that the liquid of this cement is as bad as the label would indicate.

I am inclined to believe that, given a tooth with a cavity approaching very near to the pulp, the chances of saving that pulp in its vital state are much greater if a layer of some bland material such as gutta percha or a resin in solution is placed over the region of near exposure, than if the oxyphosphate be used exclusively, especially if this be of a slow-setting variety with free acid plainly in evidence. Personally I prefer oxychloride for covering all nearly exposed pulps, with generally in addition a film of gutta percha over the region most nearly exposed.

In conclusion I will say what I expect to find variously said in your discussion, that the death of pulps beneath oxyphosphate fillings and cappings are numerous with some practitioners, because very questionable conditions are so often covered up with this material. In my own practice with a free use of inlays, set with oxyphosphate, for ten years, in all sorts of cavities and a generous use of cement for filling in certain conditions for twenty years, there has been no suggestion or indication of oxyphosphate being a destroyer of vitality of tooth pulps. If my own experiments and those of others were not sufficient to give me a conviction, my clinical experience would justify me in continuing my free use of oxyphosphates.\*

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## **Disease of the Maxillary Antrum Successfully Treated Through a Root Canal.**

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By CUVIER R. MARSHALL, A.M., M.D., Detroit, Mich.

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As professional advisers we hear so much of other people's adversities that our own little personal trials and afflictions are apt to be thrust entirely into the background. Yet it must be confessed that we all—to use the common vernacular—"have troubles of our own."

I trust I may be pardoned for presuming to relate a personal experience. The only plausible excuse I have to offer is a charitable desire to report the result of a simple mode of treatment for a condition which is not at all uncommon, and which is usually considered to be amenable to surgical intervention only.

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\*Further contributions to the discourse of this subject are cordially invited.—Editor.

Some months ago I became aware that I had an exposed pulp in the left upper first molar. A gold filling that had been placed there several years before had fallen out and the exposed cavity enlarged by caries until the pulp chamber was laid open. I consulted a dental practitioner, a young man of reputed ability, who stated that it would be necessary to devitalize the pulp, after the removal of which he could fill the root canals and pulp chamber. Accordingly that was done, as I was led to understand, and nothing more was thought of the matter. A short time afterward, while working hard and exposed much to inclement weather in responding to professional calls, I was seized with a severe rhinitis which I believed at the time had been contracted in the usual way. Notwithstanding the fact that the attack was accompanied with an unusually profuse muco-purulent discharge of a very offensive nature, the real cause of the condition did not occur to me. Relief could be obtained only by the vigorous and almost constant use of antiseptic nasal sprays, of which a mixture of normal salt solution with one per cent. carbolic acid gave me the most satisfaction.

This state of affairs persisted for several weeks with alternate improvement and recrudescence. There was no pain or localized tenderness, nor, in fact, any other symptom to indicate the source of the trouble. Finally I became convinced, intuitively rather than rationally, that the site of the disease was the maxillary antrum, and that the molar tooth which had been filled was the exciting cause of my trouble. I then consulted a surgeon who made a careful examination, and while he could detect no objective evidence of antral disease he thought it would be well to have the suspected tooth extracted. I was somewhat reluctant to lose a serviceable tooth, and decided, upon my own responsibility, to have the filling removed if possible, in the hope that more light might thereby be thrown upon the etiology of the disease. With that object alone in view, I called upon a young dentist of considerable skill and good judgment, Dr. John Roche, of Detroit, to whom I related the circumstances, and who at once consented to make an effort to remove the amalgam filling. The drill was applied and had scarcely gotten in motion when it suddenly plunged through a mere shell of amalgam, with which the crown of the tooth had been capped, giving exit to a small quantity of foul smelling pus. Further examination revealed the fact that one canal was freely open and communicated with the antrum, into which a slender probe could be readily passed, while the two remaining canals contained live pulp. The latter were cleared of their contents and filled, and appropriate treatment was begun in the open canal.

To my intense gratification the discharge from the nostril immediately ceased, but it would as promptly return whenever medicated cotton or any

other impediment to free drainage was placed in the canal; indeed, the prospect of saving the tooth seemed to be as remote as ever. Realizing that a long course of treatment would be required to accomplish a cure, involving frequent applications of antiseptic solution, I therefore determined, with the acquiescence of my dental adviser, to treat the trouble for a time myself. This I did faithfully, with a result so eminently satisfactory that I am encouraged to go somewhat into detail in my narrative for the benefit of any one who may wish to profit by my experience.

I found that I could readily pass the needle of an ordinary hypodermatic syringe well up through the root canal, and by that means was enabled to thoroughly wash out the antrum, first with dilute hydrogen dioxide and next with an antiseptic solution. Perfect drainage fortunately existed through the nasal foramen, by which route all detritus came away freely. In a few days I discovered that it was no longer possible to force fluids into the antrum, as the sinus had evidently closed. After that occurred the nasal discharge never again reappeared.

The next step was to check the formation of pus at the apex of the diseased root. To that end various antiseptic solutions were persistently employed for several weeks, but as often as applied the peroxide test would reveal the presence of pus. At that juncture samples of euthymol and euformol, two excellent antiseptic preparations from the laboratories of Parke, Davis & Co., were placed in my hands. Euformol is of about the same composition as euthymol with the addition of five per cent. of formaldehyde.

I at once began using the euthymol, diluted with three parts of sterile water, for injecting the root canal, keeping the pulp chamber constantly packed with cotton saturated with euformol. As the latter contains formaldehyde, a gaseous germicide of considerable power, I thought this volatile substance would perhaps penetrate further than fluids into the apical pus cavity, and, permeating the entire canal, would tend to keep it aseptic. These applications were continued for several weeks, until at last the action of euthymol and euformol proved to be positively germicidal and therefore curative, for all evidence of the presence of pus had disappeared under their use.

The canal was now filled by Dr. Roche with a mixture of iodoform and some excipient, the nature of which I do not recall, and the pulp chamber was packed with cement. As several months have since elapsed, I feel well satisfied with the result, for I have escaped what might have proved a very serious condition, and moreover I have now a useful tooth.



## **The Details of Constructing a Porcelain Bridge.**

By G. W. SCHWARTZ, M.D., D.D.S., Chicago, Ill.

It is intended here to make clear many of the points in constructing a porcelain bridge that have given porcelain workers much concern, causing many to abandon the work.

It is conceded by all dentists that porcelain crown work has won its way to the front rank of prosthetic dentistry. With little argument against it when debated in dental societies, porcelain bridge work is still a bone of contention whenever the subject is introduced.

I will take for illustration a right superior bridge from the cuspid to the second molar, inclusive. We will suppose the roots are properly filled, and everything is ready to begin the preparation of the roots to be used as the abutments of the bridge.

I usually begin first by making a platinum cap for the second molar. I make a platinum cap for such a case because a long porcelain bridge is more likely to fracture than a short one. In this case it reduces the length of porcelain one-fifth; thus lessening the chances of fracture. If it were a four-tooth bridge from a cuspid to a first molar, the patient's first molar easily seen by the casual observer, I would make an all porcelain crown for the first molar, cutting the root even with the gum, making an abutment in just the same manner as I would for the cuspid root.

In preparing the root for the metal cap I first cut down the tooth as near the gum line as desirable. I usually reduce the length of the crown of the tooth to about one-fourth its original length with enamel cleavers

I trim the sides of the remaining tooth structure sufficiently parallel so that I can fit a band that will not destroy the interdental space, nor irritate the gum buccally nor lingually. The second molar now being prepared, I am ready for the measurements (to cut the metal) to make the band.

I prepare this abutment first because I may want to prepare the cuspid at another sitting; for æsthetic reasons the patient might be annoyed at being without a cuspid longer than is absolutely necessary.

I usually take the measure of the root with fine binding wire. I always cut my band longer at the occlusal than at the cervical because we must contour the band to get the flare at this part. By soldering the band in this way, we can trim down and get a perfect crown shape on this part of the band. When the band is properly festooned and fitted, the occlusal end should be filed and should be fitted perfectly square together and soldered with thirty per cent platinum solder. If this is not done it is better to cut the band a trifle longer and make a lap joint. I plan the joint on the mesial part of the tooth, as it is afterward covered with the saddle.

Having the band fitted on, fill it with either modeling composition or plaster. Have the patient bite correctly, then remove the band and bite. Carve the cusps directly to this bite. Make die and counter-die from an impression in moldine, strike up two cusps of platinum and solder them together with platinum solder. File them down until they are the proper length to be soldered to the band. They should be filed and honed until they are smooth and fit the band end to end, making a close joint. After they are soldered together we have a platinum cap that is twice as thick on the cusps as it is on the band, and if it is all made of twenty-eight gauge platinum, it is heavy enough to stand any strain put upon it. All that remains is to polish it. If properly constructed, it will occlude exactly when fitted on.

Next, the cuspid root should be cut off square to the gum line, and the labial surface beneath the free margin of the gum should be beveled. All other sides should be parallel. This is beveled labially because the facing can be ground to cover the band, and when completed will look as though it were a natural cuspid coming out of the gum, thus avoiding detection. Before the enamel is trimmed off a measure should be taken and laid away until needed.

When the metal is cut for the band it should be cut a trifle short to make allowance for the bevel on the root. The band should be driven on and made to take the shape of this bevel. This can only be done by having the band the size of the smallest part of the beveled root. After I

have my band fitted I file and hone it down until it is even with the root, then solder a piece of iridio-platinum on for the cap, all of which is twenty-nine standard gauge. Having enlarged the root canal for a good sized post, punch a hole in the cap with a plate punch and file square with a small square jeweler's file, until it is large enough to take the square post, which should be about sixteen gauge and of iridio-platinum. Next fit the two in proper position on the root, letting the post extend out of the cap half the length of the tooth. If the post has been tightly fitted, it will bring the cap along with it and can be easily soldered, but if it has been loosely fitted, it will need to be invested to be soldered.

The pin is left long because it will be needed to solder the bar and pins to later. The joint between the bar and the abutments must be well made or we cannot hope for any degree of success. This is where most of the failures occur in the metal work, the frame to sustain the porcelain.

Having the abutments finished, place them on the roots in the mouth. Take a wax bite; next a plaster impression with the abutments in place. If they do not come away in the impression, remove them and replace them properly in the impression. Fill these abutments nearly full with melted wax before running the cast in the impression. This is to facilitate their removal from the model when it will be required later in soldering the bar, saddle, etc. When I run the cast in the impression I always allow it to extend an inch or two at the heel, so that I may make a plaster articulator when I run my cast in the wax bite. By doing this we have the normal occlusion. I cannot use the crown or bridge articulator as satisfactorily as I can the articulator made in this way.

After your models are made in plaster, take an impression of the model with the abutments in place in moldine, run a fusible metal die and counter-die. This is to be used for swedging the saddle, which should be very narrow on the ridge; I should say ordinarily, a saddle one-sixteenth of an inch is wide enough. The saddle should extend well on the mesial surface of the molar cap and cover the bottom of the cuspid, passing each side of the square post.

I usually build on a little wax at each approximal space on the model before I take the impression in moldine to run my dies to swedge the saddle. This is one of the places where I have seen failures, and have tried to remedy it by relieving the pressure at this point, which is distal to the cuspid and mesial to the molar. I have had hypertrophied growths at these points, and believe they were caused by the pressure of the saddle on the gum. It was on this account I introduced a double bar bridge about two years ago, which many dentists have approved and are now using instead of the saddle bridge.

Having the saddle swedged ready to solder, carefully remove the abutments from the model and melt the wax out of them. Replace them on the model, take impression of them in place on the model in modeling composition. The cap and crown should come away easily in the impression. Run a soldering cast in this impression with the abutments in it, and solder the saddle in place on this cast. This should be done with twenty-five per cent platinum solder. The saddle should be made of twenty-eight gauge platinum.

Having the saddle soldered and the abutments replaced on the original plaster model, grind in the facings to their proper position, waxing them in place. Varnish the buccal surface of the model with sandarach. Let it dry, and flow plaster over the buccal surface of the model and facings, including the adjoining plaster tooth on each side. Remove the wax from the pins and saddle, fit in an iridio-platinum bar under the pins and well against the facings. The part of the bar that comes in contact with the molar cap should be flattened out so that a broad surface will come in contact with its lingual portion. This is to get a good strong joint, as this is the point where I have seen most of the failures in porcelain bridge work.

Sixteen or eighteen gauge is the size bar or wire to use. The metal work must not be too light, as it will bend if it is, nor too heavy, as the porcelain will be liable to break away in this case.

Having the bar properly fitted in place, tack it to the cap and post of the cuspid abutment and molar cap with sticky wax. Now remove the teeth from the model, having them in the plaster investment. Put them aside for the present. Remove the metal work from the model and invest it through the center with a soldering investment. Remove the sticky wax, solder each end of the abutment to place. Remove the investment and replace the metal work on the model. Grind the pins in the facings flat where they come in contact with the bar. This is to give contact surface for the solder. If a round wire is used for the bar, flatten it also at this point for contact of the pins. Replace the facings in the investment back on the model. Wax the facings in place with sticky wax again and cut away the plaster investment from the teeth. The teeth will occupy the same position they were set in at the beginning. Varnish the buccal surfaces of the facings with sandarach. This is to prevent the investment burning on the teeth. They will come out of the investment clean, if this is done. Invest them, remove the wax without boiling.

Before soldering the pins to the bar, a stay should be put in between the bar and saddle midway between the cuspid cap and the molar cap. A wedge should be put in each end, one at the distal of the cuspid, and one

at the medial of the molar, just between the saddle and the bar. This should all be soldered with twenty or twenty-five per cent platinum solder. This makes it sure that the teeth will not change position going through the furnace. This done, the metal work is completed. The case is ready to receive the porcelain.

To be able to bake a porcelain bridge, one must know the anatomy of the natural teeth and how to carve. This can be accomplished only by careful study and much practice. Not many instruments are required, but a knowledge of their use is essential. I use a small spatula and an instrument for tracing the cusps, a medium sized screw pin vice, a small keyhole saw, two artists' brushes, No. 3 and No. 0.

Put the post of the cuspid in the screw pin vice. This makes a convenient way of handling the piece without danger of dropping it or getting the carving out of shape in handling. Begin by building up the molar first, slightly exaggerating the size, making allowance for shrinkage, next the second bicuspid and so on until it is completed and ready for the furnace.

To get the porcelain properly baked, when carving, from time to time, the saw should be drawn across the pin while holding the case. This brings the moisture to the surface much quicker than by tapping. The moisture can readily be absorbed by an old clean piece of linen or absorbent paper. The work should be jarred down as much as possible before baking, as this reduces the shrinkage to the smallest degree and insures better porcelain. After the piece is carved, it may be put on the model and tried for articulation, which should be a trifle full and allowed to shrink in the furnace. After the first bake, the piece will look different from the form first fashioned, being full of cracks and much shrunken. These should be filled up with new body and baked again, which is usually sufficient if no gum enamel is used. If the gum enamel is to be used, this should be done at a third baking.

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### **Undercut Models.**

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By D. L. P. HASKELL, Hinsdale, Ill.

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A writer in the November *ITEMS OF INTEREST*, in an article entitled "Zinc Dies," asks for other methods of casting "undercut" models.

Prepare the model as for any case, always flaring the sides so that it will drop readily from the mould and shellac. Oil as far as the undercut



extends, set upon a glass slab or other smooth surface; mix plaster and coarse, short fiber asbestos, equal parts, not too thin, and spread upon the undercut surface about one-quarter inch thick at the base, and half as thick at the top of the model; when hard, trim smooth, and trim the ends at a bevel so it can be easily replaced in the mould, dry thoroughly and mould: it and the model drop out readily; replace the core in the mould and cast the die. The process is simple and effective.

Oiled sand is of great advantage to the dentist who desires to expedite his work, as it is always ready for use, but cannot be used with zinc, as it is poured so hot it burns the oil, but there is no necessity for using zinc, as a proper babbitt metal is far preferable, being the only alloy that has all the requisite qualities for dental dies, and produces the most satisfactory results, as demonstrated by nearly fifty years' use, after several years' use of zinc.

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### Needed Review in Text-Books and Teaching.

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By S. B. PALMER, M.D.S., Syracuse, N. Y.

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The May issue of the *International Dental Journal* contains an article entitled "Facts versus Teaching."

The object of the writing was to call attention to an error in teaching through which wrong answers are given in the Regents' examination in the interest of the Dental Society of the State of New York. The question belongs to chemistry and metallurgy and relates to compounding dental alloy. It is as follows: "In compounding dental alloy, state the order of fusing the metals to avoid volatilization of the base metals."

At the time of writing mentioned, the general average of answers were ten wrong and seven right. That is, ten commenced with first melting the two highest fusing metals, descending in their order of fusion. Seven reversed the order, which is correct. The last examination was held in September, which so far beats all former records, that it seems a duty to call attention to the oversight. The rating shows that twenty-one answers were given, of which eighteen were wrong and three right.

It seems most strange that the wrong teaching should have continued after it was given to the profession. This process is fully explained in "Plastics and Plastic Fillings," published in 1881, and has since been taught in the Philadelphia Dental College.

By consulting the *Independent Journal*, the quotations may be found as well as recorded experiments made at the time to establish the fact, therefore the subject will not be repeated.

**Fusing  
Metals  
in Tin.**

But one experiment which was made in connection with this writing may astonish others as it did myself. It was a test case, not for compounding in proportions for alloy, but to determine the time of fusing platinum, gold, silver and copper in tin. A small sand crucible was used which would hold about two ounces of metal. About one ounce of tin was used, and strips of metal platinum, gold, silver and copper prepared two inches long, one-eighth inch wide and No. 34 plate gauge in thickness, except the platinum, which was rolled to 36. The crucible contained borax to about one-third full when fused. The tin was dropped in, which was covered with the molten salts. Repetitions were made to time the disappearance of the other metals. The platinum was first placed upright, and it extended above the flux nearly one inch and a quarter. In ten seconds it was out of sight. The gold, silver and copper strips were introduced in like manner, and all were taken down in a second's time. In practical work sixty-eight dwt. pure silver of 37 gauge, when cut into strips or loosely rolled, will be fused in twenty-five dwts. of tin in from five to ten minutes.

It is a fact that the above named metals may be compounded with no higher heat than is required to maintain the fluidity of borax. Any one can easily become convinced by trying the experiment.

It may be said that the question has no great bearing upon practical dentistry. It is a proper question relating to metallurgy. Justice would entitle a student to consideration, whose failure in examination was the outcome of a wrong answer, wholly due to erroneous teaching. The honors of the highest rating could not be granted without perfect answers.

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### **Method of Obtaining Perfect Metallic Dies for Gold or Aluminum Swaged Plates, Restoring all Undercuts as on Plaster Model.**

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By H. F. GRANTVEDT, D.D.S., Austin, Ill.

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In reading over an article in November *ITEMS OF INTEREST*, by Dr. Oliver P. Wolfe, of Canton, Mass., under heading "Zinc Dies," a method which I have used several times occurred to me, and though somewhat like Dr. Wolfe's method, it yet differs.

When I have a patient desiring a metal swaged plate, and the mouth presents deep undercuts and large heels (such as a plaster impression will not come away from intact) I proceed as follows:

Select an impression cup as good a fit as possible, build up the center of the cup in inverted V form with wax. Try in the mouth so as not to get it too high or it will not allow the cup to be pressed up firmly when filled with plaster. Then oil the cup and wax, mix plaster about medium and smooth, carry to the mouth and press up firmly, allowing a fulness of plaster between the alveolus, cheeks and lips, letting it harden as much as possible before removing. Remove the cup, leaving the plaster in the mouth, which should be quite thin if done correctly. Now cut slightly in plaster over cuspid region, and from right to left side on under side of plaster. The anterior portion should now come away intact. Then place thumb against side portions, and same can usually be removed in two pieces, separating in middle line corresponding to the wax previously built on cup, and which, if smooth, would still be attached to the cup and not to the plaster in the mouth.

Place the parts of impression in cup, using hard wax to hold them secure; apply coating of shellac and wait till perfectly hard; then coat with sandarach varnish and allow it to dry thoroughly. Pour model, and have it harden thoroughly before separating, say twelve to twenty-four hours; too hasty separating may result in a change of shape, as plaster is supposed to expand one-five-hundredth of its volume. When perfectly dry, shellac and sandarach, same as was done with impression.

Now you will have exactly the size of the mouth, as two coats of varnish on impression reduces model, while two coats of varnish on model will give exact size as though made in an unvarnished impression, but being very much smoother. Then dry hard.

Place on clean glass slab, surface up, with a sufficient matrix around it (about five or six inches in diameter). Mix together plaster, fiber asbestos and powdered pumice, common sand or marble dust, in about these proportions: Asbestos, three parts; plaster, two parts; and pumice or sand, one part. Mix in a large plaster bowl, water first, one-half to two-thirds full, adding slowly alternately of each according to their proportions until nearly all the water is taken up and the surface of the mass presents a milk-like color and consistency with no bubbles. Now mix thoroughly and pour into matrix, tapping slightly to insure settling. Let it stand over night. Then remove from matrix and trim; also cut a slight groove or ditch around the model, and you can pry it out of the mould or matrix formed by the mass.

Place this mould, firmly wired, on gas stove to dry out. When dry, turn on gas full pressure and bring the mass to a red heat, into which pour your molten metal, zinc or babbitt, and gradually turn off the gas until metal begins to crystallize; finally, say about one-half hour after pouring, turn off gas entirely, allowing to stand on stove until perfectly cool, when

the metallic die can be removed and the counter made by first smoking die, then filling in undercuts with moldine or core and proceeding as usual. For an accurate counter, make sectionally.

By the above method it is possible to spring the plaster model out of the matrix, which is held together by the asbestos fiber, and therefore no cracking. You will also get a much smoother and more accurate die than you ever can in sand for such a case.

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### Useful Hints for the Laboratory.

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By ARTHUR E. H. LISTER, Lincoln, Eng.

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It is not generally known how to obtain a good die from a lower model that has six or eight anterior teeth standing, and the jaw very much undercut below the necks of the teeth, lingually.

After the model has been prepared in the usual manner, oil or vaseline the parts adjoining the undercut, then flow plaster inside and build up the teeth as high as the plate is intended to go. While still plastic, stick in two pins at a suitable distance apart and press them down until they touch the model. When fully set, you can withdraw pins, and by gently tapping the model, the plaster will leave it clean.

Thoroughly dry plaster, then replace and stick it with a little wax to model; take an impression in sand in the usual way. Remove plaster from model, see that it is perfectly dry, carefully replace in sand impression, and either stick the pins through the holes "already made" into the sand, or hold it lightly in place with a knitting needle, or anything suitable, until you pour in the metal.

After a little experience with the above process you will be surprised to find that in nine cases out of ten you can procure a die on which to finish striking up a plate, which you could not have hoped to secure in any other conceivable way, to say nothing of the time saved.

When casting plaster impressions, instead of using oil or soap for the separating fluid, paint them over with a paint made of vermilion and oil, then you will be better able to detect the line of demarkation.

To clean the dirt and wax from teeth before trying them in, rub lightly with a soft rag moistened with methylated spirits.

If a vulcanite piece is to be packed upside down, you can economize time by inverting the impression for the duplicate in one-half of the flask, instead of in the usual way. Then when you wax the piece on to the

model it is already flaked in one-half and there is no waiting for the plaster to set before you pour the counterpart.

To remove vulcanite from between the teeth, take a stiff, fine needle, mount it in a small handle or broach holder, sharpen it on two sides and you have a useful little tool for the work.

When using water-of-ayr stone to erase scratches, it will greatly facilitate the removal if you occasionally dip it in a little pumice powder, which should be kept in a small vessel close at hand.

To remove scratches out of a very deep palate, if you have not a hub brush, round one end of a cork and fix it on lathe mandrel the same as you would a brush, using the usual polishing paste.

Nail a wine cork conveniently on bench and stud it all over with pins (it is surprising to see how many one will hold), then you will always have some handy for sticking in impressions of teeth, etc.

Paste a piece of sand paper within convenient reach underneath the bench, and you have a handy place to strike your matches.





## Reflex Neuroses Beginning in the Treatment of Teeth in a Case of Neurotic Type.

By HERER N. HOOPLE, M.D.

*Read before the Second District Dental Society of the State of New York, in Brooklyn, November, 1899.*

V—G—is twenty-four years old, of medium size, weight and vigor of body and mind. She has no longer any physical ailment except occasional severe headaches involving the eyes accompanied by rather rapid heart action. She is evidently neurotic in type.

At eleven years of age she presented irregularities of the teeth which she describes as having consisted in overlapping of both upper central incisors by the adjacent laterals, failure of right upper canine to make complete eruption and crowding backwards out of line of the right inferior canine, the irregularity on the left side being more resistant to force employed to straighten than that on the right. The process of straightening was commenced thirteen years ago in June, 1886, was very painful and was continued for one year before being completed on the uppers. It was noticed that when those on the right side were being put on tension a distressing pain felt from the incisors to the molars on that side, extended upward along the right side of the nose to the inner canthus of the right eye; this was never noticed on the left side. During the second year work was begun on the lowers, but was discontinued because of discomfort in the eyes. A homeopathic oculist in New York was consulted, who prescribed at different times, first, + .50 D. S., next, + 1.00 D. S., afterwards + 1.25 D. S. and finally + 1.75 D. S. The disturbances not abating, he advised tenotomy of the *right* internal rectus. Accordingly this was done in May, 1889, nearly three years after treatment had begun on the teeth. It gave relief for two days, after which the pain returned as severe as before. Six weeks later (June 12, 1889) a similar tenotomy was done on the *left* internal rectus. A month later (July

12, 1889) another tenotomy was done on the right eye, and again three months later on the same eye. After these tenotomies internal rotation of the right eye was lost and advancement of the internal rectus was done to restore it (December 16, 1889). The stitches slipped, making the operation a failure. It was repeated with no better results (March 20, 1890), so that it had to be repeated again under ether. No help was obtained from any of these operations. On the other hand, a rapid increase of pain was felt after each. An esophoria of  $14^{\circ}$  for distant and  $10^{\circ}$  for near vision *before* any tenotomy, became  $30^{\circ}$  for distant and  $14^{\circ}$  for near vision, with  $6^{\circ}$  difference in sursumduction after the first tenotomy. At the time of the last tenotomy (March, 1890), four years after the first work on the teeth, the right upper lateral incisor began to pain. Examination by the dentist revealed nothing there for him to do, yet the pain continued without relief until in three months it became intense and was accompanied by swelling and the formation of two large abscesses. These were lanced and emptied and drainage was attempted by drilling through the root of the tooth (February, 1891), the crown having first been opened and the pulp treated. After this pus began to be discharged through the right naris and then the tooth was extracted. Discharge continued four months, when antrum inflammation was diagnosed. Three months of treatment, begun in July, 1891, did not improve it. An operation was then done in a homeopathic hospital to perforate the alveolus into the antrum through the site of this tooth. Slow repair took place, followed by suppuration again in four months. It was again opened (April, 1892). It continued to discharge for one year, being dressed by the patient herself until April, 1893, when the discharge stopped. Whilst she was in hospital after the antrum operation (in 1891), she had retention of urine (stated to be albuminous), which was removed by catheterization for a considerable period. Such a variety of symptoms manifested themselves that several physicians connected with the hospital made differing diagnoses, e. g., enlargement of the liver, floating kidney, tumor of the right side, attack of progressive locomotor ataxia, myelitis, chorea, neuritis, hysteria, ovarian tumor, etc. After the discharge from the antrum ceased, a new symptom came on, a peculiar rasping cough. Her former oculist having died, she consulted a second, because of the great increase in her trouble with the eyes. He prescribed for her, O. D. + 2 D. S.  $\ominus$  + .50 c. a.  $90^{\circ}$ ; O. S. + 2 D. S.  $\ominus$  + 1.00 c. a.  $90^{\circ}$ , giving her her first correction for astigmatism. It was after this (in 1894) when I first saw the patient, examined her spectacles and found them a fairly good correction for her refractive error. The oculist finding the interni weak, had added prisms of low degree, base in, which seemed to add to her comfort. Besides her eye trouble, she had had for more than a year an irresistible, useless cough which

would break out after walking, deep, quick breathing, laughing, or any slight exertion. It was a peculiar cough, trumpet-like, as if an enormous effort was called for to scour out the throat, or expel some irritant from it. It sympathetically affected every one who heard it with a feeling of pity for her. It was always followed by a quick nasal inspiration accompanied by throwing the head backwards with a jerk, which ended by complete approximation of the *alae nasi* with stoppage of the current of inspired air. She explained that she did this to relieve a feeling of stoppage in the ears. What was afterward found made it clear to me that she was then having the initial condition of tubal catarrh.

My first examination consisted in the use of the laryngeal mirror, which revealed a pair of ivory-white vocal bands and as healthy an inter-laryngeal mucous surface as I had ever inspected—a very important fact. I next examined the chest and found a normal respiratory murmur over its whole surface. Each heart-sound also was normal, but the heart-beat was unusually frequent. There was no trace of aneurism. The patient gave me part of the above history; the rest was elicited later. By use of the head-mirror and nasal speculum the right naris was found occluded by pressure of its middle and inferior turbinates against the septum and sensitive to touch of the probe which elicited coughing. A spray of cocaine solution into that nostril immediately stopped all further desire to cough on that occasion. One piece of work after another was done upon this nostril until a free and clear air-passage was obtained. During the progress of this work I once left a pledget of cotton, impregnated with benzoinol pressed tightly like a wedge between the middle turbinated and the septum, to be worn as an antiseptic dressing until her return next day. Next day she had a very rapid heart-beat, shallow respiration, febrile movement, intense headache and the tale of a sleepless night made resonant with uninterrupted coughing. A spray with cocaine and removal of the pledget stopped all of the symptoms. Thereafter the treatment was completed without further use of cotton tampons. Having temporarily controlled the cough by cocaine spray, I felt certain that it could altogether and permanently be cured by removing the obstructions and relieving the pressure upon the sensitive nerves. Months of leisurely treatment of this nostril only abated, but did not remove, the cough. It was not until a portion of the left middle turbinated and a lingering exostosis were taken away that the cough finally gradually disappeared. The other symptoms disappeared with it almost as perfectly as one could expect, the only remaining ones being some lingering asthenopia and occasional tachycardia with headaches. The symptoms more in detail were as follows:



1. There was complaint of pain and throbbing at the inner canthus of the right eye and along that side of the nose, frequent congestion of the eyes, lachrymation and blurring of the vision.

2. There was a singular swelling on the right side of the neck which was large enough to be noticed by the patient and easily felt and seen by the physician. It occupied a place corresponding to the anterior border of the sterno-cleido-mastoid muscle over the region of the middle cervical ganglion.

3. The patient often claimed to have a pain below the right ear just above this swelling.

4. Vertical headaches had been constantly recurring since 1893 and were becoming more severe and of a throbbing character.

5. There was dizziness on rising every morning, accompanied by nausea. The dizziness was like the sensation of tipping backwards. The nausea was a very persistent thing, recurred after each meal and had been a symptom for six years. It was relieved by the operations on the right nostril and finally disappeared altogether as the treatment advanced.

6. Rotation of the eyes had often been accompanied by positive pain. This was relieved soon after the operative work had been done on the right nostril.

7. The patient had no recollection of ever having breathed freely through the right nostril before the turbinates were removed.

8. The unbalanced state of nerves concerned is well brought out by the symptoms which followed cauterization of a sensitive area on the posterior aspect of the septum (September 8, 1894) after nearly all the above-mentioned symptoms had either been gotten rid of or greatly modified. The cauterized surface remained quiescent under the cocaine until evening, when inveterate coughing set in and kept up all night long. Pain was referred to the lower part of the spine. It gave pain to walk. There was a strong tendency to throw the head back as far as it would go. There was short, rapid respiration; tachycardia; cough at the end of deep inspiration; pain in the left axilla when lying on the left side; severe headaches; sleeplessness; pain and lachrymation in both eyes, but no nausea. All these symptoms had been in evidence when in hospital or during the interval since then, but they now returned for a final splutter on the occasion of cauterizing this spot on the septum. They all soon disappeared.

For four years following this event the patient's condition gradually improved until I could say to her that she was virtually free from all trouble. The eyes alone performed their function with somewhat less than normal comfort, thanks no doubt to ill-timed tenotomies done for purely functional disturbances in the face of unremoved pathological

conditions capable of exciting them in eyes with faulty refraction incompletely corrected.

**Recurrent  
Dental  
Lesions.**

The last chapter of this history was opened in October, 1898, when treatment of the patient's left upper lateral incisor was begun by anæsthetizing the gum with Thayer's anæsthetic solution, lancing it, drilling off the root and applying a dark-colored solution to destroy the inflamed periosteum. The tooth had previously been filled with soft filling, had ached, had required the destruction of the pulp and had been followed by periostitis. That tooth has since been extracted. In November, 1898, the second right upper bicuspid was aching, was capped for filling, continued to ache, had cement removed and pulp killed and became the seat of periostitis. The tissues were anæsthetized, lanced, the root drilled and treated with Thayer's solution. Six weeks later it again became sore to touch and throbbled. The crown was accidentally broken off by eating candy. The tooth was then extracted, but a stump was left behind which continued tender. The stump was finally removed, but the socket was still tender. Dead black bone was next removed from the alveolus above it (June, 1899), after which pain slowly subsided.

Shortly after the early treatment of that right upper second bicuspid had been done, the corresponding left upper bicuspid began to ache, throb and feel sore. Periostitis was diagnosed. It was a dead tooth whose pulp had been killed two years before. The same treatment by Thayer's solution was used as for its fellow of the opposite side. It quieted down for a while, but subsequently became troublesome enough to demand extraction. At the first attempt the crown was broken off, but the root also was finally got out. In February, 1899, the first left lower molar became sore and inflammation was declared; the pulp was killed, the tooth was drilled and Thayer's solution applied. Soreness continued until June. Whilst the second right upper bicuspid was being treated the patient came to me with a return of the cough, which had almost entirely disappeared for nearly two years. She also complained of her eyes again, having pain in them, profuse lachrymation and congestion. I again made careful tests and found no reason for changing the spectacles which I had previously prescribed for her, being her full correction for hyperopia and hyperopic astigmatism. But I found erratic action of the muscles denoting marked muscular imbalance, notably strong esophoria for distance and slight exophoria for near. The excess of both these disturbances gradually went away after removal of the black pieces of dead bone from the alveolus.

The above history covers a period of thirteen years and is as accu-

rately given as I have been able to get it from her. The description of work done for her by her dentists is in her own language. I cannot vouch for the correctness of terms used, nor for the character of the work done. I have no knowledge whatever of the dental mysteries involved. I have simply marshaled facts and statements together into a complete history to enable us to analyze them and learn the lessons. I have no doubt it presents as many points of interest from a dental standpoint as from a medical one. From the latter I shall now briefly discuss the facts and then leave them to you for your intelligent discussion and analysis, especially from the dental standpoint, for my enlightenment.

<b>Relation of Reflexes to Dental Lesions.</b>	Given a certain quality of nerve tissue, it may possibly be admitted at the outset that even slight wedging of the teeth continued for a period of nearly two years, was easily capable of causing more than merely pain, in other words, of setting up a perma-
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nent irritability of the nerves distributed to these teeth. But a pre-existent faulty condition of nose might easily in itself be blameworthy, needing nothing more than this interference with the teeth to arouse a hitherto latent pathological condition. Wherever the blame may lie, the fact is that we ultimately found here a pathological condition not only in the nose, but also in the antrum and teeth primarily treated. It is noteworthy that thirteen years after treatment was begun on these teeth necrosed and blackened portions of bone were removed from that portion of the alveolus of the right side of the superior maxilla from which the second bicuspid emerged, remote only one tooth from the incisor first extracted to give drainage from the antrum. The reflexes most in evidence here are, in the order of their occurrence, as follows:

1. Imbalance of the external ocular muscles with possible disturbance of the ciliary muscles in accommodation.
2. Nausea, mornings and after eating.
3. Quickened respiration and tachycardia.
4. Cough.
5. *Throbbing* pain at the right side of the nose near the inner canthus of the eye; also *throbbing* headaches, conjunctivitis and increased lachrymation—all due to vaso-motor disturbance.

Other phenomena of pain in the case are probably not reflex, at least not directly so. Pain in the eyes might be due to congestion from disturbed vaso-motor control of the circulation, or it might be due to effort spent in overcoming inharmonious action of the external ocular muscles, and thus in either case indirectly due to the reflex producing the discord. The pain beneath the right ear might be dependent on disturbed nutrition involved in the swelling noted over the edge of the sterno-

cleido-mastoid in the region of the middle cervical ganglion of the sympathetic, due indirectly as before to vaso-motor disturbance from the common origin. But it is safer to regard pain as outside the scope of reflex phenomena. The true character of a reflex can always be checked by its centrifugal quality resulting in change—motion, secretion or nutrition. But it is necessary to bear in mind that not all phenomena having a centrifugal quality are reflex neuroses. All other means of explaining them must first be excluded. The sensory areas of suspected reflex should show signs of pathological character and should as a rule be capable of excitation by various stimuli to reproduce the reflex phenomena in question and, failing this, to produce equivalent or accompanying reflexes.

Keeping these safeguards in mind we note at once the obstruction found in the nose occluding the right naris and pressing on the septum; the exostosis from the septum, the irregular condition of the teeth at the outset, the necrosis of the alveolus found later and the intervening inflammation of the antrum. Just what pathological place dental literature ascribes to irregularities of the teeth I do not know, but I should think they might easily have a pathological quality. Again, I think we may fairly state that all pathological conditions are more sensitive to slight disturbances than are normal conditions. Hence the appearance of extraordinary pain in the initial treatment of these teeth. Hence also the ready involvement of the eye muscles in asthenopic anomalies which led to the tenotomies, because compound hyperopic astigmatism was already present. Next note that the equivalent and accompanying reflexes present are additional support of the claim of these neuroses to be true reflexes. I refer in the former ("equivalent") to the tachycardia and nausea, involving the sympathetic element of the vagus, and in the latter ("accompanying") to dizziness, throbbing headaches, throbbing pain at right side of nose, increased lachrymation, involving as they do vaso-motor disturbance of the areas implicated.

The two reflexes to which alone I shall give detailed consideration here are the cough and the anomalies of the ocular muscles.

It is necessary to keep in mind how the branches of the fifth nerve are distributed over the areas affected. First, the anterior dental branch of the second division distributed to the incisors of the superior maxilla, has direct association by means of the ganglion of Bochdalek within the antrum, through a small branch of the superior nasal nerves with Meckel's ganglion; and this ganglion is connected by its pharyngeal branch with the pharyngeal plexus. It is probable, as Schadowolf has pointed out, that it is through this pharyngeal branch that the sensation is referred to the larynx when the posterior part of the nose or naso-pharynx

is irritated. Hence the coughing and croup occurring with adenoids and naso-pharyngeal catarrh. But the cough in the case of our patient was not due to this nerve; it was excited by irritation of the pathological areas in the right nostril; it was quieted by cocaine applied to those areas and it was entirely got rid of by removal of the turbinates and treatment of the supersensitive spots. It was therefore due to a sensation carried along the affected branches of the fifth nerve through Meckel's ganglion to the medulla, there transferred to that portion of the medulla in which the central filaments of the vagus terminated, especially those filaments which take their origin in the laryngeal mucous membrane under the name of the superior laryngeal. The sensation did not travel back thence to the larynx over a sensory tract, but, continuing from its new location in the vagus center, traveled upwards to the sentient center in the cerebrum, where it was interpreted as if it proceeded from the larynx—like some tickling sensation. This intelligence called for action. Automatically and promptly, a motor impulse started back from the cerebral center, traveled downwards to and through the phrenic and other spinal nerves controlling the muscular act of coughing, and the reflex act was completed.

The nasal branch of the first, or ophthalmic, division of the fifth, is distributed to limited areas of the anterior and upper end of the septum and to that portion of the anterior end of the middle turbinated which would press upon it if the two were in contact, so that pressure here is apt to bring about disturbances of other areas to which the same nerve is supplied. Hence occasional involvement of the caruncle and conjunctiva as well as the lachrymal gland. Even the pupil and accommodation may be disturbed through those branches of the ophthalmic given off to the lenticular ganglion and the ciliary nerves. All these disturbances were present in this patient as well as that pathological condition just named—contact between the anterior end of the middle turbinated and the septum. It is fair, therefore, to suspect the irritated condition of this nerve as the partial, if not the efficient, cause of the lachrymation, the conjunctivitis and even the blurring from disturbed accommodation, the ciliary nerves sharing in the disturbance. If this were the method it would not be reflex but associated disturbance. It is, however, likely that a coexisting reflex does take place under the circumstances. The sensation in that case proceeds first to the center in the medulla along the ophthalmic nerve, thence to the sentient center in the cerebrum, is there perceived as a mixed sensation, coming partly from the nose and partly from the other areas affected, and is interpreted as calling for a centrifugal influence to be sent back along the sympathetic channels of the same nerve to the lenticular ganglion, ciliary nerves and lachrymal gland.

It remains finally to consider briefly that series of disturbances presented here and treated by glasses and tenotomies, known as asthenopic anomalies of the ocular muscles. We are dealing with difficult problems, but this is the most difficult of all and most important, for upon its proper management depends to a great degree the patient's well-being and comfort in the perception of all those sensations which come to her through her eyes. It is simply the problem of single vision with two eyes; in other words, of fusion of two images into one perception.

The patient had from the beginning a double error of refraction known as compound hyperopic astigmatism. One of these alone is capable of causing disturbance of vision and asthenopic symptoms even in those not otherwise inclined to be nervous; much more are these likely to occur when both are found to coexist in the same patient. In the majority of cases it is efficient treatment to fully correct the refractive error; others need tonics as well, exercises for the eye muscles, general exercises and improvement of the general health. But in the case we are studying we have pathological conditions in two other distinct areas, the teeth supplied by the anterior dental and the nose supplied by the nasal branch of the ophthalmic and the other nasal nerves from Meckel's ganglion. By so much the more is the difficulty increased of dealing successfully with her disturbances of visual function. These conditions were all present when the tenotomies were being performed. They should have been recognized, dealt with and eliminated from the problem before resorting to tenotomies. The oculist must see more than the eyes of his patient. He must interrogate all possible causative agencies, either personally or by aid of the family physician. His own educated insight must be derived from previous experience in general practice. Yet when light has been sought from all sources, these asthenopic problems sometimes remain unsolved and discomforts remain after all details have been attended to. Such cases belong usually to the highly neurasthenic type, or at least have some fault in nerve quality that cannot be brought up to the standard of comfortable and efficient function. It is in this field that eye-men find their most difficult, most interesting and most useful work. The degree of comfort finally procured for this patient in the exercise of single vision, whilst not perfect, is yet both gratifying and encouraging in spite of untoward interferences.





## Second District Dental Society.

### November Meeting.

A regular meeting of the Second District Dental Society of the State of New York was held on Monday evening, November 13, 1899, at the residence of Dr. R. C. Lienau, No. 175 Congress street, Brooklyn.

The President, Dr. Kraemer, occupied the chair, and called the meeting to order.

The Secretary read the minutes of the previous meeting, which were approved.

It may be an interesting piece of information to most of the members that we are now enabled to exchange licenses to practice dentistry, issued in New York State, with the New Jersey Board—that is, dentists who have received a license to practice dentistry from the Regents since 1895, and who received the degree of M. D. S. after an examination by the old Board of Censors, will be granted a license to practice in New Jersey, without examination, and those who have been licensed to practice in New Jersey, after an examination by the New Jersey Board of Dental Examiners, will be entitled to receive a license to practice dentistry in New York State without further examination. That matter has been accomplished during the last month. Any one who had the degree of M. D. S. would be entitled to receive a license to practice.

Would the M. D. S. entitle a New Jersey man to practice in this State without examination? That may seem a curious proposition. For instance, Dr. Osmun, of Newark, is an M. D. S. Could he come here and practice without a new examination?

Certainly; the Board of Regents acknowledges every degree that was given by the New York State Dental Society, after an examination by the old Board of Censors.

**Interchange of State  
Licenses—Dr. Jarvie.**

**Dr. Ottolengui.**

**Dr. Jarvie.**

**Dr. Houghton.**

Do I understand that the degree of D. D. S. is not recognized at all, but the M. D. S. is recognized?

**Dr. Jarvie.**

Not at all. All who hold the D. D. S. and who have received a license to practice dentistry in New York State will be granted a license to practice dentistry in New Jersey upon application in the proper form.

**Dr. Lienau.**

That means practically everybody who passed an examination after 1895?

**Dr. Jarvie.**

Yes; the reason why it does not go back of 1895 is that there were no examinations before that, except by the Board of Censors.

The paper of the evening was then read by Dr. Hoople, entitled "Reflex Neuroses Beginning in the Treatment of Teeth, in a Case of Neurotic Type."

### Discussion.

**Dr. Ferris.**

My remarks must be limited, because I am unable to understand the subject fully, from the fact that I cannot examine the mouth of the patient, nor tell from the dentist's standpoint the exact method of treating the teeth. The paper brings before us the important fact that it behooves us to look more frequently into the nose and to question our patients in regard to pathological conditions in other regions than our own. I could not help feeling that the movement of those teeth under the regulating process was the cause of the necrosis which afterwards developed, although the doctor's inability to give us more complete dental history of the case would leave that an open question. Thayer's solution I have never used, and do not know what it contains. That is another point in the question.

**Dr. Brockway.**

Undoubtedly a great deal of mischief is done by injudicious operations in regulating the teeth, and the connection between the teeth and the eyes is very much more intimate than most of us understand. I remember hearing Dr. Bull, of New York (who is recognized as an authority on the subject of the eyes), say that he never undertook a case of treatment of the eyes now without insisting that his patient's teeth should be put in proper condition, because experience in many cases had taught him the futility of attempting to treat diseased conditions of the eyes while the teeth were diseased. I think that the paper which has been read tonight illustrates that point, and it will be of great service to us. Of course, when this case was taken in hand to regulate, the conditions and the appliances for correctly regulating teeth were not as advanced as they are



at present. I have myself given but very little attention to regulating teeth for a number of years, but I take great interest in the subject, and I notice that the appliances which are used nowadays are vastly more simple and effective than those which were formerly employed. For that reason I should think that the chances of producing the distressing symptoms which have been mentioned in the case reported have been very much lessened.

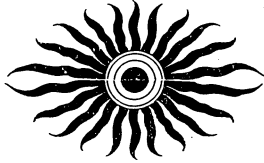
I cannot agree with Dr. Brockway that the state of our art in 1892 was sufficiently poor to excuse the dentist for any faults in his manipulation of that mouth. What improvements have been made in regulating methods in the last seven years are inconsequential in the face of the results reported here. Kingsley's book was published in 1888, and there were adequate methods described there for regulating a case such as is described tonight. Not only that, but many other methods were well-known at that time. There is no excuse whatever for a dentist to regulate teeth and allow even one to become sore. A child's tooth can be regulated without any discomfort even. In the face of repeated articles in our literature warning us of the danger of reflex troubles from lengthy dental operations, it is inexcusable for any dentist to take charge of a patient and leave the patient in a worse physical condition than when the case came to him, even though he should succeed in his dental undertaking. Only this week it happened that I had in hand three or four cases that were in the same stage requiring plates which are held by clasps. I told all of these patients that the suffering which they would have to endure from the wedging of the teeth would be the greatest suffering they will have throughout the regulation. That has been my experience. The pain of one or two days separating of young back molars will be the worst pain that need be inflicted during regulating. Appliances can be made so that they do not cause pain, and therefore cannot occasion reflex disturbances. Pain is a good danger signal in these cases. There is no hurry to regulate teeth. I have heard many gentlemen tell how quickly they regulate teeth and in my younger experience I have been guilty of reporting a number of cases that were done very rapidly. I am not in a hurry any more. I am after results, and the main result is to leave the patient in a good physical condition at the end. It seems that the patient discussed tonight was most unfortunate in the attendance she had up to the time she reached the essayist. The possibility is that one man destroyed the pulps in the bicuspsids. It sounds like widening the arch in a hurry. They afterwards died with necrosis and antral infection. Then she gets into the hands of a medical man who performed tenotomies on both eyes. About a year ago we had an oculist here who said that any man who performs

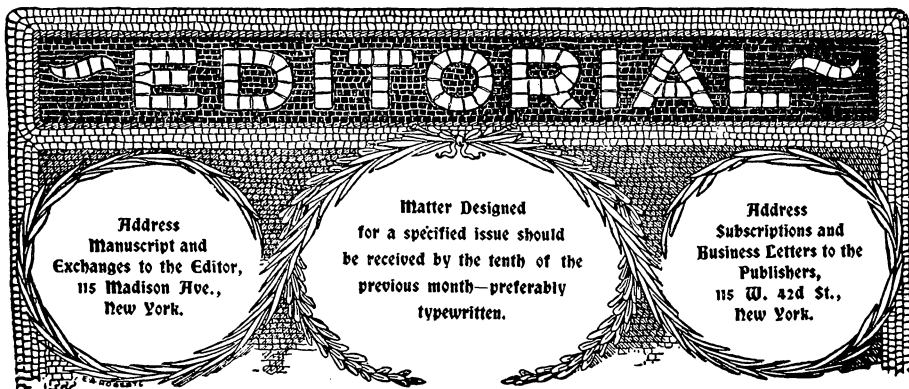
tenotomy is first cousin to a quack. Then she reached a hospital where she had seven different diagnoses of her trouble. I am not at all certain that her final condition was not due to her attendance rather than herself.

A paper something like this, written by Dr. Pierce, changed my whole practice. From that time to this I do not believe I have ever operated on a patient without considering the possible danger to other organs and other regions than those on which I was working. It is not only in large things, but also in small ones, that this care should be exercised. There is no hurry to regulate teeth, neither is there any hurry (unless you are short of money for your rent) to fill teeth. If teeth must be spread and they become sore under that act it is an absolute wrong to fill those teeth until they have recovered from that soreness. I believe a great many dead pulps that have been discovered mysteriously in after years have been due to malleting on sore teeth, thus causing pericemental inflammation and so affecting the vitality of those teeth. I think in Dr. Pierce's paper he described the case of a young lady who insisted upon having her teeth fixed within two or three days, because she wanted to get back to boarding school. It involved the placing of some twenty or thirty fillings in that time. He gave up the whole of two or three days to the work, protesting that it was wrong to do it, but she insisted upon it. He reported the case twenty years afterward, stating that she was a neurotic wreck. She went home after he performed the work for her, became hysterical and very ill, and did not go back to boarding school after all. Her people said she "went into a decline!" That incident has been a beacon light to me in my work ever since and if this paper which has been read tonight will serve the same purpose for those who have not heard of reflexes before, the essayist can feel well gratified that he has sown on a fertile soil and will reap a great crop.

I thank you very much for the attention you have given the paper which I presented. The history of the patient could not interest you even a trifle more than it has interested me from beginning to end. I was not aware that in presenting the case I was making it problematical at all whether the dental treatment in the case was faulty or not. I did not know anything about that side of the question. I did not know whether hasty or deliberate work had been done. I do not know how to judge that kind of work. What I think might be well worthy of paying attention to is the fact that when considerable pain was felt on the right side and none was noticed on the left, something ought to have been suspected and looked for, and as Dr. Ferris and Dr. Ottolengui have both remarked, I think there is an unusual amount of importance to be attached to the preliminary looking around for other things—possible

causes of disturbance. The necessity for that comes to us perhaps more than to you, and yet nothing can be taken for granted by either of us. It is perfectly proper and safe and wise for us to go to each patient with the idea that that patient may carry around with him or her some lurking cause that we do not suspect, and which we should make allowance for. I want to say that I have been delighted with the new thoughts that have come to me through what you have said, and I am more than thankful if any thought has come from me to you.





## **Examining Boards Should be Controlled by State Societies.**

We publish elsewhere an account of a condition of affairs in connection with the California State Board of Dental Examiners, which suggests the question whether it is wise to clothe an examining board with unlimited power.

One of the first examining boards was that in the State of New York. This board was purely an examining board, being wholly without power to grant a license. It was indeed an integral part of the State Society, and upon their recommendation it was the State Society which granted diplomas to the successful candidates which gained them license to practice. Recently the dental act of New York has been altered, and the licensing power has been taken from the State Society, but the principle involved has been maintained. The Board of Examiners now report to the Board of Regents, who grant the license. This Board of Regents is a body of prominent citizens above the influences of political corruption. Being the guardians of the educational system of the State, it was deemed wise that they should control the dental schools as well.

It has long been a feature of the New York State system of government to entrust special departments of its police system to the care of associations organized with such intent. Thus we have "The Society for the Prevention of Cruelty to Children," "The Society for the Prevention of

Cruelty to Animals," "The Society for the Suppression of Vice," and others, all of which aim to compel obedience to the special laws within their province. In like manner the State Dental and Medical Societies not only examined candidates and granted licenses, but they likewise prosecuted illegal practitioners, the registration fees as well as the fines obtained in court being paid into the State Society's treasury. The reason for taking the licensing power away from the State Dental Society has been given, but the examiners are still chosen by the State Society. It is thus evident that at no time have the examining boards of New York been free from the supervision of the State Dental Society, and their fine record is a strong argument against any system which allows politics to enter into the appointments, or which creates a board not controllable by the State Society.

We recently commented editorially upon the position taken by the New Jersey Board, which body declined even to make a report of its proceedings to the State Society. There was one exception among the members, Dr. Charles Meeker, who claimed at that time that the best interests of the profession of his State demanded that the Dental Examiners should feel obliged to obey the wishes of the State Society.

The wisdom of his position is attested by the condition of affairs reported in California, and it is interesting to find Prof. Dunbar, in his summary of the California situation, declaring that the only remedy lies in an amendment to their law which will give the State Society control over the Board of Examiners. The charges against the California Board, the charges against the Illinois Board, the troubles with the Wisconsin Board, the declaration of independence by the New Jersey Board, all these added to the whispers against other boards, show only too clearly that the time has come for a wholesale rearrangement of the powers of dental examiners. The State laws should be amended as soon as possible, relegating the licensing power to the State Dental Societies, and restricting the duties of the Boards to examinations only.



Questions will be answered in this department, provided the answers would be of general interest. After publication our readers are cordially invited to make further reply, criticism or comment.

At the November meeting of the Second District Dental Society Dr. William Jarvie reported, as published elsewhere in this number, that interchange of license had been arranged between the States of New York and New Jersey, in evidence of which he stated that as a test he had applied for a license to practice in the State of New Jersey and that the license had been granted.

**Interchange of License  
Between New York  
and New Jersey.**

In order that there might be no misapprehension due to faulty reporting on the part of the stenographer, a letter was sent to Dr. Jarvie asking that he should specifically give his understanding of the alleged agreement between the States. The following

is his reply:

*"Dear Doctor Ottolengui:*

In response to your letter of inquiry, I would say that an interchange of licenses to practice dentistry has been arranged for between our own State and that of New Jersey by which, if a dentist who has been licensed to practice in New York after examination, wishes to practice in New Jersey, he will be granted a license to practice there upon making application to the New Jersey Board of Examiners in proper form and paying the license fee.

In like manner a dentist who has been licensed to practice in New Jersey, will upon application to the Board of Regents and payment of the license fee, receive a license to practice in this State without further examination. With the season's kindly greeting, I remain, cordially yours,

WILLIAM JARVIE.

Notwithstanding this statement, and in spite of the fact that the New Jersey Board issued a license to Dr. Jarvie, reciprocity does not seem as yet to be fully established. Dr. Geo. W. Marshall, a New Jersey dentist, wishing a license to practice in New York, applied to Dr. Wm. Carr, one of the examiners, and received the following reply :

*"My Dear Doctor Marshall:*

Replying to yours of November 24th, I would advise you to make your application to J. Russell Parsons, Jr., Esq., Regents' Office, Albany, N. Y., who will give you all the necessary information, blanks, etc., on the subject. Yours truly,

WILLIAM CARR.

Dr. Marshall had no desire to leave his own State, but rather made his application as a test of the reported agreement. He therefore wrote to Mr. Parsons of the New York Board of Regents, and received the following :

*"Dr. George W. Marshall, Newark, N. J.:*

Dear Sir: It will be necessary for you to take the licensing examination should you desire to practice in this State, as the Boards of Examiners have not considered licenses issued by any other State Board as of a standard equal in all respects to that of New York State. Very truly yours,

JAMES RUSSELL PARSONS, JR.

This does not seem to indicate that the regents and the board in the State of New York agree as to the interpretation of the interstate agreement.

**How a Woman  
Became  
a Dentist.**

The New York *Sun* recently published the following most interesting account of a woman's early career as a dentist, which is reprinted here that it may serve as an incentive to young aspirants of the sterner sex, as well as to point a way to better things for many of the lady assistants in dental offices, whose eyes may chance to read the lines :

"You are wondering," said the little woman, "just how I happened to become a dentist."

"Yes, I would like to know," the other woman replied.

"It's a story of drifting. When I began I had no intention except to find something to do. In fact, I didn't look far enough into the future to think of a career. What I wanted was work and the first work I could

find. You see I was only 16 years old then, and I was so small for my age that I seemed much younger. My father and mother were both dead, and although my brothers would have been perfectly willing to take care of me, I wanted to do something for myself. I used to look at the positions that were advertised in the paper and wish I could fit into one of them. One night I saw an advertisement for a young girl for an office that looked possible. It did not say what the work would be, but it did say 'German preferred.' That made me rather hopeless, for 'German preferred' did not mean me. But the next night I saw the same thing again, and I made up my mind to apply for the place. I thought I wouldn't say anything about it at home, but the following day I started out. How forlorn I felt trying to find the street, for I knew nothing about that part of town and had to inquire my way. Finally I found the number and discovered that it was a dental office. A girl was wanted to take care of the instruments, to attend to the correspondence, and to take charge of the books. 'But you are too young,' the dentist told me, and then he went on to say that there would be no use in my trying. However, I was so much in earnest that he finally consented to a two-weeks' trial, although he warned me not to be disappointed if I had to give it up.

"But I stayed out the time, and I've been there ever since. Of course, there were hours when I had nothing to do and then I used to watch him work. One thing that interested me was the method of taking impressions. It was during my third week that I made up my mind if I were ever going to learn how to do that I ought to do so at once, and that the best person to experiment with would be myself. There was a patient in the chair at the time, and the doctor, of course, was busy. So I went into the other room and set to work to take an impression of my mouth. The fact that I had never lost a tooth made it difficult, and I realized that before I was through. I filled my mouth with the plaster of paris, and then tried to take it out. You know how quickly it hardens; well, it was like a rock almost before I knew it, and I couldn't make it stir. There was no use, I had to make the predicament known, and so, with my mouth open, but speechless, I went into the next room.

"The doctor was the most surprised man you can imagine. He had to take a hammer and knife to chop that plaster out. That was the only really unpleasant experience into which my eagerness to learn led me. The doctor took special pains to teach me about things, because he saw I was in earnest. I used to watch him at work, as I have said, and study his ways and study him, too, because I was so anxious to please. And all that time I was picking up ideas, till I felt I could do any sort of dental work if only I had the chance. It was April when I went there. In August the doctor went away for a month and left me in charge of the



office, to keep things in order and to tell patients when he would be back. The office is in his private house, as you know, and the building next door is an apartment house, which he owns, too. The janitress of the latter house I had spoken with many times, and always with a wish that I could get at her teeth. You have no idea how poor teeth trouble me when I see them. Sometimes I just long to have an opportunity to make them what they should be. This was the chance of a lifetime, I thought, while the doctor was away. The janitress's name was Mrs. McGuiness, and one day I got her up in the office.

"Mrs. McGuiness," I said, 'how would you like to have your teeth filled?'

"Why, sure, I don't know," she said.

"If you will let me fill your teeth, I will do it for nothing," I said.

"Oh! land, no. There ain't no use in filling my teeth," she said.

"But you'll look so much younger and handsomer," I urged, and she weakened visibly after that.

"I have often wondered since how she dared to trust herself to me. She might have been a sacrifice to science, but it came out all right as it happened. It really was her great opportunity to have the work done for nothing; it was mine to gain experience. When the doctor came back and I showed him her mouth, he would hardly believe that I had done it all. There were ever so many difficult fillings, and a cap on one of her teeth. It was not so very long before I was attending to all the mechanical part of the work, but though I had gone so much further than I had ever dreamed I should, I was discontented. Yet I kept staying on and on. I had grown up with the doctor and knew his ways so well that I was really invaluable to him. He had increased my salary right along, too, but still I couldn't bear the thought of being an office girl all my life. There was a law in the State then that any one who had studied with a dentist for five years could take the examination of the State Board and so become eligible to practice.

"The doctor urged me not to go away to study, as I suggested, but to stay with him and study up for that examination. So I started in to do that by working all day in the office and studying at night. But that just about broke me down, for I would study till 12 o'clock perhaps and then sleep till 2 and then get up and study till morning. But there was no use in keeping that up. I simply couldn't. Besides, the more I studied, the more I knew I wanted to learn, and so finally I decided that I would go away to a dental college. At the close of the first year I came back and took the State examination and passed, but even so I had made up my mind to go on through the whole course. Summers I went back to the office and worked again. Were there many women taking a dental course

in college? In my class there were fourteen, but that was an unusually large number. They were from all parts of the world, too. There were four German women and three Russians and one Frenchwoman. Then there were several women from the Western States. The class below mine had but five women in it.

"The foreigners are much better students than the Americans, but they are slow about grasping the point. Perhaps the fact that they were not thinking in their own language had much to do with that, but at any rate they seemed slow about catching on to the drift of the subject, where the American student is quick to anticipate and see the point, even before it develops. American dental colleges are considered the best. We had one student from Egypt in my class. It does seem strange, when I stop to think, that I am a regular dentist at work here in the same office I entered as a little office girl. The doctor furnishes all the materials and the office and I get a percentage on the work that I do.

"Of course, my patients are nearly all women. They are really much braver than the men about enduring the pain. You see we never extract teeth, and so the most disagreeable part of the work I have nothing to do with. Sometimes patients come in who do not want to trouble about saving a tooth and then we send them to the specialist who does that sort of work. The other day a woman came in and told me what she wanted, but I didn't quite understand her.

"Did you say you wanted the tooth extracted?" I said.

"No; I said I wanted it taken out," she replied, with great spirit.

"I think it was the very same day that another woman came and asked me to take her 'expression.' But I like the work."

**The Removal  
of Blood Stains  
from Clothing.**

J. T. Rugh, in the *Philadelphia Medical Journal* of August 12, 1899, says that hydrogen peroxide will remove blood-stains from linen or other fabrics. The earlier the application is made the better the result, but even old blood-stains may be completely decolorized by this method. The peroxide should be used full strength and the application repeated until the stain is entirely obliterated, this being hastened by rubbing the spot with the finger or a cloth during the application. If hot water has been used, or anything that will coagulate the albumen, the peroxide will not remove the stain. By this method he has often removed spots from the shirt-front, collar and cuffs, and after the surface had dried there was no evidence of soiling. The color of fabrics is not changed by the peroxide.—*Ex.*

**Death Not Due  
to  
Nitrous Oxide.**

In our last issue, we republished a news item from the New York *Herald* in which it was reported that a patient had died from the effects of nitrous oxide administered for tooth extraction. It appears that the report was erroneous, as the following letter

shows:

"A clipping appeared in 'The Editor's Corner' of January ITEMS OF INTEREST taken from the New York *Herald* of Dec. 18, 1899, in regard to a death by the administration of nitrous oxide gas. The coroner's verdict was to the effect that the boy died from the administration of 'vitalized air,' a combination of gas and chloroform, and he warned the public through the press against the danger of its further continuance. I publish this article for the benefit of any of my dental brothers who might be prejudiced against the use of nitrous oxide gas from the clipping in January ITEMS. Yours respectfully,

J. L. EGAN."

P. S.—Please find inclosed advertisement of Dr. Munson, the dentist who administered the air to the boy.

E.

## TEETH EXTRACTED WITHOUT PAIN

WITH DR. MUNSON'S FAMOUS VITALIZED AIR.

Our Tooth Extracting Specialist (formerly of Boston) is unexcelled by any in the world.

Teeth extracted for.....25c

Gas or Vitalized Air.....25c

Cocaine, Eucaine or Freezing the gums.....25c

Ether, Chloroform, or Bromoform given if desired.

Gold Fillings..... \$1 and up

Cement Fillings..... 50c and 75c

Artificial Plates..... \$1 and up

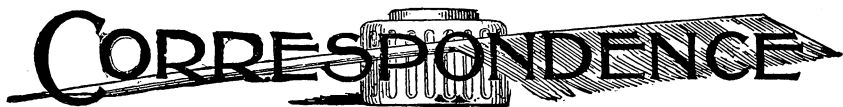
Full upper or lower set \$8. None better made. (We deduct for extracting.) Call and get our prices on Crown and Bridge Work. An examination and estimate of work on your teeth costs you nothing at

DR. MUNSON'S DENTAL PARLORS,

177 BANK ST. (cor. Grand).

'Phone 152-4. WATERBURY, CONN.

# CORRESPONDENCE



## The Wisconsin Case.

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To the Editor:

It is well known to the members of the dental profession, especially those interested in dental education, that in April, 1899, the Wisconsin State Board of Dental Examiners refused to register diplomas from the Chicago dental colleges and other schools as the law provides. The provision of the law is that the board shall at all times issue a license to any regular graduate of any reputable, legally incorporated dental college, without examination, upon the payment of the registration fee. After making inquiry of the Secretary of the board as to the reason why the diploma of his client was not registered, Attorney Quarles, who had been retained in the case, received the following reply:

"Milwaukee, April 15, 1899.

"Hon J. V. Quarles, Milwaukee, Wis.

"Dear Sir: I am authorized to say from instructions received from a member of the Committee on Colleges of the National Association of Dental Examiners that if the college you represent accepts all the rules as laid down by the National Association of Dental Examiners, in regular form through that body, that this board will, upon the receipt of such knowledge, issue licenses to regular graduates of said college.

(Signed.)

"W. H. CARSON, Secretary,"

After receiving the above letter, Dr. P. T. Diamond, a graduate of the Chicago College of Dental Surgery, brought mandamus proceedings to compel the board to accept his diploma. The board moved to quash the proceedings, which motion was denied by the court in a vigorous decision handed down by Judge Sutherland, of the Superior Court of Milwaukee County, Wisconsin. Summing up the case, in regard to the standing of the college, the Judge makes use of the following language:

"The relation in this case shows that among intelligent men, whether members of the dental profession or not, the Chicago College of Dental Surgery must be regarded as a reputable institution. \* \* \* Therefore, without difficulty, the court reaches the conclusion that the motion to quash the mandamus proceedings must be denied."

The action of the board was based on the ground that those schools refused to subscribe to a rule passed by the National Association of Dental Examiners, regarding the preliminary educational qualification of students, the colleges giving as a reason their unwillingness to accept the interference of the boards in a matter which was outside of their proper function.

The National Association of Dental Examiners, of which the Wisconsin Board was a member, at their meeting at Niagara Falls in August, 1899, rescinded the rule which was the cause of the controversy, and passed a resolution adopting, in substance, the rule governing preliminary educational qualifications of students, which was adopted in 1898 by the National Association of Dental Faculties, and it was hoped that henceforth the two national bodies would work in concert and harmony. In adopting this resolution the National Association of Dental Examiners recommended to the various State boards that all the schools belonging to the National Association of Dental Faculties be placed on the recognized list, and that the graduates of those schools be licensed, and that all litigation cease. In all States where difficulties had arisen regarding the registration of diplomas of graduates of schools belonging to the National Association of Dental Faculties, the trouble was at once terminated and licenses issued, except in the State of Wisconsin.

The representative from the Wisconsin Board pledged himself at Niagara Falls to return home and do all in his power to terminate the litigation. The week following the National Association meeting the Wisconsin Board, with their attorney, met by appointment the representatives of the Chicago College of Dental Surgery and the plaintiff in the case against the board with his attorney, and after a conference the representatives of the board informed the representatives of the college that the members of the board had voted *unanimously* to continue the litigation.

On August 13, 1899, the following letter was written by Senator J. V. Quarles, attorney for the complainant, to Dr. T. W. Brophy, Dean of the Chicago College of Dental Surgery:

"Quarles, Spence & Quarles,

"Attorneys and Counsellors,

"The Sentinel Bldg.

"Milwaukee, Wis., Aug. 13, 1899.

"Dr. T. W. Brophy, No. 126 State street, Chicago, Ill.

"Dear Doctor: As you are aware, a meeting of the State Board of Dental Examiners took place yesterday in this city for the ostensible purpose of carrying out the recommendation of the National Board so explicitly made at its meeting at Niagara Falls. Nothing could be more

plain and explicit than the recommendations of such National Association, which ought to be looked upon as a command by members thereof.

"I have to report, however, that our State Board have assumed to be wiser than the National organization and have positively declined to follow or respect the mandate of the central body. The State Board refuses to recognize the diplomas of your college and all others similarly situated, and leave no course open but to continue the litigation. We shall, therefore, unless ordered to the contrary, embrace the first opportunity to crowd the case to a final hearing and allow the National Board to deal with its recalcitrant members. Very respectfully yours,

(Signed.)

"QUARLES, SPENCE & QUARLES."

Preparations were then made for a vigorous prosecution of the case. The Law Committee of the National Association of Dental Faculties, which was created at the Niagara Falls meeting, in August, 1899, for the purpose of taking charge of this litigation, as well as any other litigation involving the Association or any college holding membership therein, held a meeting in Chicago, October 14, 1899, and after Drs. Barrett and Morgan of the committee held a conference with the members of the Wisconsin State Board, the latter agreed to license graduates of the Chicago colleges and all schools belonging to the National Association of Dental Faculties. November 6th the agreement was consummated. November 7th the following letter was received by the Dean of the Chicago College of Dental Surgery:

"Quarles, Spence & Quarles,

"Attorneys and Counsellors,

"The Sentinel Bldg.

"Milwaukee, Wis., Nov. 7, 1899.

"Dr. T. W. Brophy, Chicago, Ill.

"Dear Doctor: After great tribulation regarding matters of detail, I am glad to report to you that the board has finally decided to conform with the provisions of the Dental Law of Wisconsin, abide by the ruling of the National Association of Dental Examiners and license Chicago graduates and all other graduates from schools holding membership in the National Association of Dental Faculties, thus admitting that, in their action in refusing to license these graduates from April 11th to November 6th, 1899, they were in the wrong. Everything, consequently, in the Diamond mandamus case has been brought to a satisfactory conclusion.

"The injustice the Wisconsin State Board of Dental Examiners has done your graduates, yourself and the many schools involved cannot be easily forgotten, but our success in securing all we contended for is an assurance of the justice of our cause.

"Dr. Diamond's license has been issued on our assurance that he would discontinue the case. The stipulation to withdraw the suit has been signed by both parties, the whole matter is now closed up and the litigation is a thing of the past. Yours truly,

"QUARLES, SPENCE & QUARLES.

"A. O. HUNT,

"W. C. BARRETT,

"HENRY W. MORGAN,

"Law Committee of the National Association of Dental Faculties."

### **Cuttlefish as Secondary Dentine.**

Editor ITEMS OF INTEREST.

The following paper read before the "American Dental Club of Paris" in October, 1899, with the accompanying protest, were voted by the Club, November 4th, 1899, to be sent for publication to the leading dental journals of Europe and America:

#### **"Dentine Plastique du Docteur Klein." \***

By I. B. DAVENPORT, M.D.

Mr. President and Gentlemen:

During the winter of '97 and '98, a man calling himself Dr. Klein of Buda-Pest, came to Paris to sell his interest in a pulp-capping which he called "Dentine Plastique du Docteur Klein."

He sent around samples to dentists for trial, and a few weeks later called to ask for a testimonial.

During that time he sent to the Club for our examination a section of tooth filled with cement over a capping which he rested upon the bottom of the pulp chamber; this was accompanied by the statement: "That this capping and filling had been done in the mouth three years before the tooth had been extracted, the extraction having been done for the scientific purpose of showing the transformation during the three years' sojourn in the mouth of the capping material into organized dentine."

We all examined the section under the microscope and easily remember the peculiar appearance of the capping.

Soon after a call from this same gentleman on several members of

\*"Dentine Plastique du Docteur Klein du Buda-Pesth," view showing its transformation in the pulp-chamber after three years' sojourn in the mouth."

\*\*"Dentine Plastique du Docteur Klein du Buda-Pesth. Vue de sa transformation dans la chambre pulpaire après trois ans de séjour dans la bouche."

the Club was made to request a testimonial, which was refused, but not long after we all received a circular (which I have brought along) recounting the virtues of the Plastic capping, and containing an engraving of the sections of tooth sent to us for inspection, with the names of nearly all of us appended to a testimonial in favor of this material.

Nearly all the names on that circular were placed there either directly against a specific refusal to allow their use or without being asked.

This circular appears to have been published all over the world (it lately appeared in a Mexican dental journal) with our names added against our wish or knowledge, and is helping to sell this stuff, of whose composition we know nothing.

Now about that piece of tooth sent for us to inspect, and this drawing made from the same, which forms part of the circular to which our names are appended, Mr. Dalton can tell you, and has kindly consented to do so.

Mr. Dalton is an expert preparer of objects for microscopical study. His work in the form of "Dalton's Gems" is well known:

Mr. Dalton said:

"Gentlemen: Some time ago a friend brought me a section of a tooth, of which a gentleman unknown to me wished a drawing made, showing particularly the appearance of a substance under the filling. This cut in the circular mentioned by the *Essayist* is a reproduction of the drawing made by me, excepting that these heavy lines have been made over my drawing, as if marking it off into little squares; in all other particulars it is as I drew it.

"When I examined the section from which the drawing is made I noticed a familiar substance occupying part of the pulp chamber and supporting the filling. I scratched out a slight fragment and placed it under a microscope, and found it to be, as I first supposed, a section of cuttlefish bone.

"I am not a dentist, but when my friend came for the drawing, I casually remarked: "That must have been a clever idea to place a light support of cuttlefish bone to build the filling upon." My friend replied: "Get out with your cuttlefish bone—that is new-formed dentine."

"I was greatly surprised, as I supposed he knew its composition. After some difficulty he was convinced, but not until I had shown him under the microscope pieces of this capping side by side with pieces cut out of cuttlefish.

The essayist continued:

Gentlemen: From Mr. Dalton's remarks you see the imposition shown in that section of tooth; and in this drawing which has marked over it in large letters:



It seems evident that this device was intended solely to make a favorable impression and facilitate the sale of a product which, if as good as pretended, ought not to need so much misrepresentation.

This improper use of our names gives a false impression.

Mr. Dalton then showed under the microscope preparations of cuttlefish bone which were made on the spot.

#### PROTEST.

We, the undersigned, whose names are appended to the affirmation of the success of "Dentine Plastique du Docteur Klein," have never given consent to the use of our names in that connection.

J. G. Brigiotti,	John Evans,
E. A. Bogue,	J. Michaels,
G. C. Daboll,	A. Huguenschmidt,
I. B. Davenport,	John Didsbury.
C. V. Du Bouchet,	L. Saussine,
Chas. Hotz,	Geo. Roussel,
Theodore W. Evans,	W. S. Davenport,
J. H. Spaulding,	Dr. Henry Didsbury.

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### Need of Dental Services in the Army.

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#### Editor ITEMS OF INTEREST:

When the First and Second South Carolina Volunteer Regiments were being organized for the war with Spain, they were stationed in this city, prior to the First Regiment going to permanent camp at Chickamauga and the Second to Jacksonville. The surgeons were not supplied with dental instruments for the extraction of teeth and, by the authority of the Surgeon General, Capt. E. B. Fuller, the mustering officer, appointed me to do the extracting necessary for the men of the above regiments. I came in professional contact with about two hundred of the officers and men. I extracted between one hundred and forty and one hundred and fifty teeth, most of which were paid for by the Government and the rest were paid for by the men, they not having orders from the surgeons to have the extracting done. For several days after pay days I devoted all my time to operative work for these soldiers, they paying for the same, and you can well imagine that out of their small salaries they only had just such work done as required immediate attention.

During my professional relationship with the soldiers I noticed one case of syphilitic necrosis, two cases of necrosis due to chronic abscessed

teeth, six cases of alveolar pyorrhœa (none of which had ever received medical attention), three cases of impacted wisdom teeth with extensive inflammation, and in two cases suppuration. In all of the above cases I informed the surgeons of the necessity of treatment and what I would have done for the same in my private practice. Out of the two hundred men spoken of, there were seven totally incapable of masticating their food and a number only partly able to do so.

The First Rhode Island Regiment and the Second Tennessee Regiment were stationed in Columbia for a short time, and during their stay here I inserted sixty-nine fillings, made five plates, mended three plates and extracted nineteen teeth, all of this work being paid for by the patients. I am sure that the other nine dentists in this city averaged as much work among the men of the Rhode Island and Tennessee regiments as myself.

I have written several articles on the need of dentists in the army (published in *Leslie's Weekly*, *Army and Navy Journal* and *American Dental Weekly*, etc.), but they were all written before I was as thoroughly acquainted with the subject as I am to-day.

If each dentist would urge the senators and representatives for his district to give their generous support to the army dental bill, the blessing of proper dental attention to the defenders of our country would be assured.

CHARLES O. STANLEY, D. D. S.

Columbia, S. C., Jan. 10, 1900.

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Editor ITEMS OF INTEREST:

Dear Sir: In reading the January number of the ITEMS OF INTEREST I find your article on "Dentists in the Army."

I have been in Manila since the taking of the Philippines, having gone there at the request of General Merritt, and through the indorsement of Surgeon-General Sternberg, traveled via transport. I left Manila in July and have been traveling in India on pleasure since, only just returning to America.

I went to Manila in the hope of making a report that would induce Congress to act in this matter, and last January sent a report of cases among the enlisted men whom I examined to both Senator Perkins, from California, and Surgeon General Sternberg. I worked on about one hundred and sixty cases gratis, so as to embody them in my report, and found in over eighty per cent of the men a great need of dental services. Any information or help I can give you in this matter I am only too happy to supply, as I consider it one of the most important matters demanding attention in the United States Army at present. Very truly,

J. J. GINSTI, D. D. S.

San Francisco, Cal., Jan. 10, 1900.

## Painless Pulp Extirpation.

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Editor ITEMS OF INTEREST:

Dear Sir: I have been much interested in a statement of Dr. A. H. Brockway, on page 927 of December ITEMS OF INTEREST: "Should it be deemed advisable to destroy the pulp—and this is often the wisest course, especially in adult teeth—this can be done *painlessly* by the proper application of arsenic."

Now, it is news to me that devitalization by arsenic can be made always painless, and perhaps it may be so to others, and if you could get Dr. Brockway to explain to us the way to do it you will confer a favor on "suffering, sad humanity." Respectfully yours,

STEWART J. SPENCE.

Harriman, Tenn., Jan. 3, 1900.

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Editor ITEMS OF INTEREST:

Dear Sir: I very cheerfully comply with the request to tell my method of destroying pulps painlessly with arsenic, one that I have practiced for many years and have often described in dental meetings.

It is simplicity itself, the application usually taking but a moment.

Having removed enough of the softened dentine to nearly or quite expose the pulp, wash out the cavity with quite warm water, protect the tooth with a napkin or bibulous paper from the saliva, dry out slightly, then having moistened a pellet of cotton the size of a pinhead with carbolic acid or creosote, touch it to the nerve paste so as to take up the "least little bit," and lay it gently on the point of nearest exposure. Upon this place another pellet of cotton large enough to very loosely fill the cavity, and over this flow carefully a little melted wax or paraffin, enough to keep the plug in place, but *not* to produce pressure.

This will easily be retained, and in a few hours—twenty-four to forty-eight—the pulp will be found to have "given up the ghost," and usually with no more than a slight uneasiness, not to be called *pain*. Very truly,

A. H. BROCKWAY, D. D. S.

Brooklyn, N. Y., Jan. 15, 1900.

## Treatment After Extraction.

Editor ITEMS OF INTEREST:

Dear Sir: In my practice, after extracting teeth, bicuspid and molars, especially the latter, I have found in many cases that the socket does not heal as it should, and in some instances the soft tissue will slough off.

I use great precaution in sterilizing my instruments, and have wondered what occasioned this condition.

I would be very glad to hear your opinion on the subject, also other prominent dentists through the ITEMS OF INTEREST. Yours very respectfully,

J. K. GRISHAM.

New Milford, O., Jan. 15, 1900.

(Dentists delight to call themselves dental surgeons, but, unlike the general surgeon, they too often allow open wounds to go uncared for. No surgeon would leave a wound such as is made by the extraction of a tooth expecting it to heal without care and observation. Presumably most teeth are extracted because their roots are diseased, consequently it should be expected that the socket also would be in a diseased condition. Often the abscess sac is torn away from the end of the root and remains in the socket. Again, carious or often necrotic bone may be present. We should not expect the soft tissues of the gum to heal over a place of this character. The dripping of the pus from the socket causes an infection at the orifice with the result that we have sloughing of the gum tissues. As I do not administer gas, I send those of my patients who may require extraction to a specialist, but they are invariably directed to report to me on the following day. The socket is then thoroughly cleansed, necrotic soft tissues being removed with a curette, and a thorough examination being made for carious or necrotic bone. In simple language, the socket is thoroughly cleansed until nothing but healthy tissues remain, whereupon irrigation with an antiseptic followed by an antiseptic dressing suffices at that visit. The case, however, is observed during the week in order to be sure that all diseased parts have been thoroughly removed and healing proceeds.—EDITOR.)

# MEMORIAM

## B. H. Catching.

It is with great regret that we announce the death of our distinguished *confrere*, Dr. B. H. Catching, of Atlanta, Ga.

It was the writer's pleasure to make his personal acquaintance while attending one of the meetings of the Southern Dental Association in Atlanta some twelve years ago, and whilst the distance that separated us prevented any close intimacy, the impression made then, and at several meetings since, leaves a living picture of a man whose whole soul was devoted to the welfare of our profession.

On the night before his death he had attended a social entertainment, and arose at the usual hour on the following day, November 23, 1899, ate breakfast cheerfully with his family, and was about to start for his office when he was seized with apoplexy and died almost immediately. Whilst we all sincerely mourn the loss of so distinguished a brother, it is impossible not to wish that at the end we may all die as easily.

Dr. Benjamin Holliday Catching was fifty-one years old at the time of his death, having been born at Georgetown, Miss., January 28, 1848. His great-grandfather was the Honorable Benjamin Catching, a distinguished man of his day, and one of the delegates at the convention which framed the State Constitution.

He studied dentistry first with Dr. J. S. Knapp, of New Orleans, La., and obtained his diploma from the Baltimore Dental College, graduating with honors in 1870, acting as valedictorian of his class. From 1871 to 1881 he practiced at Canton, Miss., removing at the latter date to the city of Atlanta, where he continued in practice until the time of his death.

He has been widely known in the profession from his contributions to literature, but more especially as the editor of the *Southern Dental Journal*, which he conducted for eight years. He resigned this position to carry into effect a cherished project, and began the publication of *Catching's Compendium of Practical Dentistry*. This was a volume published annually for five years, in which the author compiled from the current literature the most useful articles which had been published, classifying them appropriately so that the reader might quickly discover all that was most recent in connection with any given topic. Ill health, largely due to overwork in

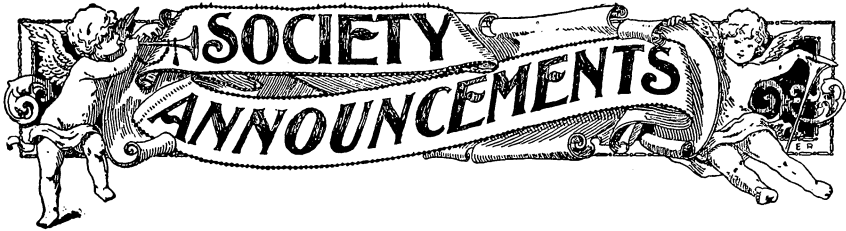
carrying on this publication, caused him to abandon the enterprise after the fifth volume in 1896, but in 1897 he again undertook literary work, and established *The American Dental Weekly*.

In this venture he had associated with him five collaborating editors, and though the little magazine was well received and rapidly achieved popularity, it was abandoned at the end of one year.

The Doctor was once the president of the Southern Dental Association, was a member of the American Dental Association as well as of the more recent National Association. He was prominent in his State Society, and for years served as a member of the Georgia State Board of Dental Examiners.

He leaves a widow, a son and three daughters.





### **New York Odontological Society of New York City.**

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At the next regular meeting of the above society, held at the Academy of Medicine, 17 West Forty-third street, February 20th, at 8 p. m., Dr. Norman W. Kingsley, of New York City, will read a paper. Subject: "Has Dental Legislation Cured Quackery?" Clinics will also be held in the same rooms at 3 p. m. sharp.

W. W. WALKER, President,  
58 West Fiftieth Street.

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### **Twentieth Annual Banquet.**

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#### **Central Dental Association—1880-1900.**

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Twentieth annual banquet will be held at No. 943 Broad street, Newark, N. J., S. Davis Parlors, on Monday evening, February 19, 1900. Dinner served at 6:30 sharp. The profession are cordially invited to attend. Applications for covers, \$1.50 each, with remittance, will be received by Dr. Charles A. Meeker, No. 29 Fulton street, Newark, N. J., to 12 o'clock noon of February 17. No seats will be reserved. Formal dress optional. Menus mailed on request. Look at your appointment book and mark off this date.

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### **University of Tennessee, Dental Department.**

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The University of Tennessee Dental Department will hold its annual Alumni Clinic in the college building at Nashville, Tennessee, February 15th and 16th.

Clinics will be given on both days and models exhibited. A number of papers have been sent in to be read on this occasion. One of these will be a criticism by a prominent man on the writings of Drs. Flagg, Black

and Wedelstaedt on amalgam, with practical suggestions on how to work amalgam.

The Alumni dinner will be given at the Hotel Tulane, Friday evening. All dentists in good standing are cordially invited.

L. G. NOEL.

Nashville, Tenn.

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### **The First District Dental Society of New York.**

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The First District Dental Society of New York will hold a clinic in the infirmary of the New York Dental School, 216 West Forty-second street, on Tuesday afternoon, February 13th, at one o'clock.

C. BAKER, Secretary.

53 West Thirty-third Street.

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### **District of Columbia Dental Society.**

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At the thirty-third annual meeting of the District of Columbia Dental Society the following officers were elected for the ensuing year: R. W. Talbott, president; H. J. Allen, vice-president; Jno. H. London, secretary; Mark F. Finley, treasurer; H. B. Noble, librarian; L. C. F. Hugo, essayist.

JNO. H. LONDON, Secretary,

1115 G St., N. W., Washington, D. C.

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### **Kentucky State Dental Association.**

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The next annual meeting of the Kentucky State Dental Association will be held in the City of Louisville, on the 15th, 16th and 17th of May, 1900. We are already assured of the best meeting in the history of the association. Aside from an attractive programme, the meeting of the National Confederate Association in Louisville at the same time enables us to procure a one-cent per mile railroad rate from over the greater portion of the United States. There will be many other attractions to the dentists who attend; trips to the wonderful Mammoth Cave and to the blue grass region of Kentucky. Ample accommodations at reasonable rates have already been obtained. For further information address

F. I. GARDNER, Secretary.

213 West Chestnut Street, Louisville, Ky.